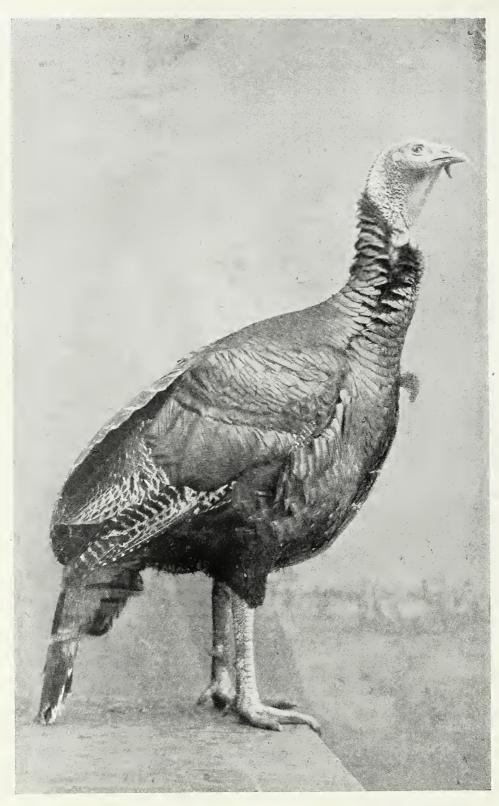
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THE MOST POPULAR OF ALL TURKEYS.

THE AMERICAN BRONZE.



VOL. IV.-No. 4.

January 1, 1912.

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DIARY OF THE MONTH.

EDITORIAL NOTICES.

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The Editor will be glad to consider any MSS., photographs, or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., photographs, or sketches, and publication in the Illustrated Poultry Record can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. All rights of reproduction and translation are reserved.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.

The Annual subscription to the Illustrated Poultry Record at home and abroad is 8s., including postage, except to Canada, in which case it is 7s. Cheques and P.O.O.'s should be made payable to the Illustrated Poultry Record.

The Illustrated Poultry Record is published on the first of every month. Should readers experience any difficulty in securing their copies promptly they are requested to communicate immediately with the Editor. The latest date for receiving advertisements is the 20th of the month preceding date of issue.

The utmost care is exercised to exclude all advertisements of a doubtful character. If any reader has substantial grounds for complaint against an advertiser he is requested to communicate at once with the Editor.

The Poultry Institute Again.

Our forecast last month as to the result of the application made by the Provisional Committee of the National Poultry Institute has been abundantly verified. The Development Commissioners have responded in the most complete manner, and stated that they are prepared to recommend the Treasury to make grants from the Development Fund to something like the amounts asked for by the Provisional Committee - namely, £8,500 for establishment and equipment and £2,000 per annum for maintenance, provided that the Institute be incorporated on a permanent foundation, and that equal amounts be obtained from private and other sources. A further suggestion is made that leading Poultry and Agricultural Societies shall be included in the governing body. The Committee have, we understand, accepted the conditions laid down, and are taking the steps for securing the funds necessary to the accomplishment of the project. It may be hoped that the importance of the Poultry Institute may be recognised and that the money required will be immediately forthcoming. It is satisfactory to note that the position taken by those concerned, to the effect that such an institute shall be on an independent basis, so as to ensure that it be national and not sectional, has been approved by the Development Commissioners, so that it may be additional to and not in rivalry with agricultural colleges and other insti-Poultry-keepers may, therefore, fairly anticipate that their hopes are in a fair way of realisation.

£2 a Week from Poultry.

If the way could be clearly indicated how men, with a modest capital, could realise a clear

profit of forty shillings per week by poultry-keeping it is not too much to say that there are tens of thousands would enter upon the pursuit. Therefore, we do not wonder that this question comes up again and again for discussion. That there are many who do this, and even more, is a fact, but these are either farmers, to whom the fowls are but part of their operations, fanciers, or stockbreeders. It is an altogether different proposition when sale of eggs or chickens for market is concerned. What so many fail to realise is the extent to which operations must be carried on to enable what is here stated to be accomplished, and to leave sufficient margin after the expenses are paid. Here are two facts which must be kept in mind: The total value of 50,000 eggs is less than £250, provided production is divided equally over the entire year; and the total value of 1,000 chickens is not more than £125. Therefore, if anyone managed to do both his sales would be £375, out of which food and all other charges have to be met. If these latter were reasonable, the £2 per week should be in sight, but that is something like the scale necessary for its realisation. To do this, however, the laying and breeding stock must be 400 to 500.

Progression in Scotland.

Since the Report of the Departmental Committee, appointed by Lord Pentland three years ago, very marked advance has been made in respect to poultry-keeping over the congested districts of Scotland, and recently at an accelerated pace. At a recent meeting of the Poultry Committee of the Aberdeen College of Agriculture it was reported that, in conjunction with the College, the Congested Districts' Board have opened twelve new breeding stations in Shetland, two in Skye, one in North Uist, and four in In all, nearly 3,000 sittings of eggs Orkney. were supplied by the Board within the North and North-Eastern Sections of Scotland, and it is anticipated that the improvement of stock will be The College has now five instrucvery great. tresses and two instructors on its staff. During the last season 147 lectures were given at 51 centres, with a total attendance of 6,680. In the year over 3,000 visits were paid to poultrykeepers, the effect of which is probably greater than that due to public addresses, though the latter are an important part of the work. most serious hindrance has been the outbreak of disease in the Orkneys. It is satisfactory to note that this has been investigated, and the recommendations made should go far to overcome it and prevent further loss. Scotland was late in waking up to the possibilities of the poultry industry, but it is evident that now these are realised.

British Poultry Federation, Limited.

An important step has just been taken by the above society which, it will be remembered, last July took over the marketing section of the National Poultry Organisation Society, by the opening in Hosier Lane, E.C., of a London distributing depôt. The premises secured are near Smithfield Market, and, therefore, in the heart of the district to which buying retailers resort, so that it should be convenient to all con-We believe that the ultimate need for such a depôt has been recognised for years equally by the N.P.O.S. and country depôts, but as the former is not a trading society, and was simply undertaking responsibilities in respect to marketing as a temporary expedient, it did not feel justified in taking that step however desirable it may be. It speaks well for the new co-operative organisation that within six months of its coming into being such a development has taken place, and we hope it may be followed with abundant success. By ensuring greater reliability of supplies, and avoiding multiplicity of deliveries to customers, it is believed that the business done on behalf of collecting depôts will rapidly extend, in fact in keeping with the extension of production in the rural districts. Perhaps we may look forward to the time when similar distributing depôts may be co-operatively conducted in all the leading centres of population.

Export Trade in Live Stock.

The Report of the Departmental Committee on British Export Trade in Live Stock cannot fail to be disappointing to poultry-breeders, though some of the recommendations, if the feathered races are given their proper place, would do much to help them in extension of their business. Those who formed the Committee are, in the main, concerned with other classes of stock, and it is very regretable that there was no one appointed on this Committee who would have looked after poultry interests. In reading the various sections, it is evident exhibition poultry did not receive its meed of justice. Probably it is true that much disappointment has been caused as a result of show stock being found to be poor in economic qualities, but many buyers abroad want the former and not the latter. Whatever may be the case in the future, it is fairly certain that the greater value of live poultry exported at present are of the exhibition rather than the utility type, and we do not see why this should not be encouraged just as much as pedigree horses and cattle, for of these pretty much the same may be said. The main recommendations which concern poultrybreeders are that the export of inferior stock shall be discouraged, consuls should have a knowledge

of British live stock, the Intelligence Division of the Board of Agriculture should have a Bureau of Information, including, we suppose, poultry, and that the official volume, entitled "British Breeds of Live Stock," should be widely distributed. It is surprising that nothing is said as to giving help at foreign exhibitions. After the fiasco at Brussels and Turin, so far as the Royal Commission is concerned, it might have been hoped something real would have been suggested. Certainly we seem to be no further forward.

"New Laid Preserved Eggs."

Such was stated recently in a case tried at the Hastings Police Court to be the reading

intent to deceive the purchaser, and therefore is fraudulent. In court it was said this meant the eggs were new laid when first preserved. Such is a mere subterfuge. The trade knows full well what is a new laid or even a fresh egg as distinct from one which has been preserved. Anyone selling the latter for the former is doing so to obtain an increased price, to which end they deliberately deceive the purchaser. In the trial at Hastings a man bought preserved eggs and sold them to a shop-keeper as new laid. For that he was deservedly accorded three months' imprisonment, although the trader must have been easily gulled, as he ought to have known the difference, and also from the fact of the price asked being very low indeed. The presiding magistrate said



WINTER IN THE POULTRY-YARD.

[Copyright.

on a card displayed in a shop there. If the law does not regard that as a false description, it is time it was altered. The use of the words "fresh" or "new-laid" for eggs preserved by any method, whether lime-water, water-glass, or cold storage, ought to be prohibited, if that is not now the case. To those who know such a term as "new-laid preserved eggs" is a deliberate that "it would be very much better to sell preserved eggs as preserved eggs and not in any way as new laid. It is possible the Legislature will have to deal with the question in the same way as it had with butter." There is, however, something more required—namely, as to the meaning of such terms as noted above, which are often regarded almost as interchangeable.

THE POULTRY FANCY FORTY YEARS AGO.

By JAMES LONG.

F I may judge from a long experience of poultry exhibitions and exhibitors, should express my belief that there are men and still fewer incidents of surpassing interest which can be compared to those which occurred in the early days of the poultry fancy. I was privileged to know all the famous judges and exhibitors of forty years ago, and I cherish pleasing recollections of each man as an individual and of his particular Judging and exhibiting to-day is of a much more practical and stereotyped character than it was at the time of which I speak. The poultry fancier had no organ in the Press, the varieties of poultry were less numerous, and those which took the lead in popularity were but in the process of formation. I speak in particular of the Brahma and the Cochin, which were known respectively as the Brahmapootra and the Cochin China. The one source of information on poultry matters was the Journal of Horticulture, in which were occasional articles by Lewis Wright, whose acquaintance I made in very early days, and who first acted as judge at an important exhibition in response to my request. It is true that there were occasional articles in the Field, by Mr. Tegetmeier, who, I believe, is the only member of the old fraternity of judges who is still alive, and to whom I owe many pleasant recollections, but this great newspaper was not an organ which was largely taken by the exhibitors of the day.

I propose in these remarks to speak of the most prominent exhibitor of his time. I refer to Henry Beldon, who has had no equal since he passed away. Mr. Beldon exhibited on a gigantic scale, and was the recipient of prizes at every show in England and Scotland, and in many shows across the sea. He soon became a close and intimate friend with whom I passed many happy hours on numerous occasions at his Yorkshire country home. At the time of my first acquaintance with him he was about fifty years of age, tall, genial, alert, with a keen eye for a good bird of any variety, whether poultry or pigeon, constantly travelling from show to show, and enjoying life to the full. He was a persistent smoker of cigars, which appeared to be inseparable friends on almost all occasions, but especially during those periods of mental anxiety when the judges were making their awards. Mr. Beldon became a professional exhibitor as much perhaps for the love of the sport as for the profits which he realised—and they were very considerable, for, owing to his great success, he was constantly asked to supply birds for winning prizes by fanciers from all parts of the country.

My first visit to Goitstock, near Bingley, where Mr. Beldon resided, was made at the close of the Birmingham Show in December. I travelled with his famous henchman, Job, throughout the night, arriving at Bingley Station early on the following morning in the dark, walking to Goitstock a distance of three miles. The snow was on the ground, and I noticed as we passed the mills, which are numerous in Airedale, that every one of the many hundreds of windows were lighted up, the hands being at work—for it was past six o'clock. Times were always merry where Henry Beldon was, and after enjoying a hearty breakfast, we proceeded to see the birds. The house to which I have referred had formerly been the home of a mill owner, the mill itself having been abandoned; but there it was, with its many windows and its several lengthy floors. These floors were divided into numerous compartments, one to every window, and in each compartment was placed an exhibition fowl. The mill was therefore a stupendous poultry-house, in which as we entered we were met by the crowing and the cackling of innumerable cocks and hens of many varieties. The top floor of all was devoted to fancy pigeons, of which Henry Beldon was very fond, and especially of those which he imported from Germany from a famous amateur, Hugo Du Roi, and which were then described as German Toys. A few years after this particular visit I myself made a journey to Germany, where I made the acquaintance of Du Roi, who was a famous judge and breeder of these varieties of pigeon, but at that time I happened, unfortunately, to be plucked myself. Exhibiting some Hamburghs at the International Exhibition at Hamburg, I was awarded three prizes of honour, or championships, consisting of silver plate, which I prize highly up to the present day. the same exhibition a German exhibitor obtained a similar prize for a small collection of White

African Owls. This gentleman was anxious to obtain my Silver-Spangled Hamburghs, while I was anxious for his Owls. An exchange was therefore effected. I gave him the order to obtain the poultry and he undertook to ship the Owls to me. There was possibly a great temptation to him to commit a fraud, and undoubtedly he fell, for the birds he sent me were much inferior to those which had occupied his champion pen.

With the mill at his command, Mr. Beldon was always able to keep a large number of exhibition birds in clean and smart condition, and to keep them in separate pens, although I am bound to express my belief that they failed to maintain that robust health which birds kept in separate pens on grass maintain in the open air. They were, however, supplied with all that was required and were entirely under the rule of Job, who was one of the great personalities of the poultry world. His skill in preparing poultry for exhibition and his well-known judgment were thoroughly understood. When in later years Job retired from service and made a start upon his own account, he became a serious thorn in Henry Beldon's side, beating his old master from time to time and contributing in no small degree to the misfortunes which subsequently followed. So long as the combination lasted, Mr. Beldon was invincible, but it was well understood by those who knew that he trusted too implicitly to his poultry-manager and too little to himself. Take him, however, for what he was I do not expect to look upon his like again.

On each visit paid to Goitstock it was our usual custom to walk from place to place, usually across the fields, to visit some little cottage where a mill-hand usually dwelt, with the object of inspecting the small flock of poultry from which Mr. Beldon was able to select. It was his custom to supply birds or eggs to little breeders on condition that he paid for what he wanted at a given price. It was in this way that he was always able to place his hand upon a bird to show or a group of birds to sell, and as he was compelled to maintain his reputation and to win he found it sometimes necessary to pay to other breeders a comparatively heavy price.

I remember among the various humble Yorkshiremen to whom we paid these country visits were two or three whose names reminded me, by their pseudonyms of men, of centuries ago. There were two in particular, both sterling Yorkshiremen with their happy brogue, who were named respectively Tom o' the Touch and Jack o' the Rough. I frequently met these old boys, but I never heard of their possession of any other names. They lived in the Brontë country, which was close at hand, and many times have I heartily

enjoyed our walks across the moors near which so many humble poultry-fanciers dwelt.

At one time a complaint which was known as the disease, but which was subsequently described as diphtheritis, was very common, large numbers of poultry-yards being attacked, chiefly, as it was believed, through the introduction of the disease by birds which had been infected at a poultryshow, with the result that costly birds were lost, but few men lost more than Henry Beldon. The tongue and palate were covered with a yellow substance or false membrane, which was frequently removed, although its removal was usually followed by death. When, however, the growth of the membrane first commenced, a cure was much more easily effected. The small portion of cheesy matter which was present was removed with a wooden spatula and the place cauterised at once, the mouth being washed from time to time with chlorinated soda. It was essential to isolate the bird. The attack of one specimen was usually followed by the attack of many, and when the first discovery was made, it became necessary to examine every bird and to act accordingly. Mr. Beldon's practice was to kill every bird which was affected badly, and to cast it down the well which had originally supplied the mill-wheel with water. No doubt this plaguepit still exists, but it is to be hoped that its services will never be required.

A week spent at Goitstock usually meant a visit to three or four local shows, for at that time there were many in the locality of the great cities of the West Riding, and at each of these—which included Bingley, Otley, Skipton, Keighley, and many more which were notorious among Yorkshire fanciers—we met several exhibitors who were almost equally well known and to whom I may be able to refer another time. Among them was W. F. Entwisle, the famous Bantam-breeder; the Brothers Silvester; Mr. Charles Sidgwick, of Keighley, a famous winner in his day; Alderman Harvey, of Sheffield; and, by no means least, Henry Pickles, who subsequently acted as poultryman to myself, but who was the greatest rival of the famous Job.

It was the custom of a number of Yorkshire poultry-fanciers to meet at a given place at Bradford every week, and on more than one occasion I accompanied Mr. Beldon there, giving the title "Travellers' Rest" to the hostel, which was somewhat famous in its day. Here plots and plans were hatched in connection with the future shows. Here, too, were victories won and lost before the date of competition. Among those who were frequently in attendance were the well-known judge, Enoch Hutton, and the almost equally well-known Spanish breeder, James Thresh.

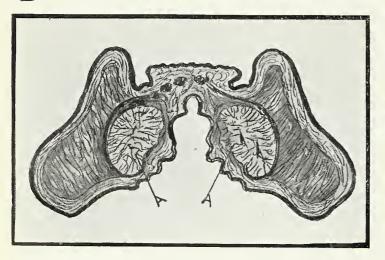
A CHAT ABOUT BEAKS.

WRITTEN AND ILLUSTRATED BY JAMES SCOTT.

HE feature that appears to have undergone the most remarkable changes during the evolution of birds is undoubtedly the beak, or, as some people prefer to call it, the bill. Not even in general aspect of body, nor in wing formation, have such striking modifications occurred as are to be noticed with the beaks. Compare together those of the hornbill, spoonbill, avocet, sunbird, woodcock, flamingo, crossbill, eagle, scissorbill, pelican, and heron.

In almost every case the shape has some reference to the necessities and habits of the birds. As I am at present dealing solely with poultry, it would be irrelevant to discourse upon the structural vagaries of other kinds of winged creatures; yet they all have a bearing on the particular formation of our domesticated favourites. We may be sure that Nature does not waste her cleverness—so to express it—when designing beaks any more than she does during the perfecting of the bodies as a whole. We admire the birds' powers of flight, thereby appreciating the wings; but seldom give a thought to the merits of the beaks, without which the creatures could not obtain their livelihood.

A beak practically consists of a pair of long jaws encased in horny matter which is spread over



No. 1.—A magnified cross slice of the upper beak of a young cock. The outer black line indicates the layer of horn which sheathes the beak.

them in successive layers. It has to meet with many hard knocks against stones and is thrust into corrosive substances—such as the acids from decaying vegetation—as well as continual friction from one cause or another. Even the blades of grass, among which fowls are so fond of pecking for insects and fallen seeds, are edged with sharp teeth of indestructible silica, and these would soon scratch to pieces any beak that was not sufficiently well protected. Fig 3 will serve to explain these possibilities. The comparatively granular, finely divided substance would soon be detached entirely away if it rubbed much against such teeth. Silica,



No. 2.—A magnified pinhole view of a cross slice of upper beak of a young cock, showing the pattern of the lower, inside portion, corresponding with the palate. The horn is disposed of in wavy layers.

by the way, is the fundamental basis of flint and sand, so that the reader will understand that it is not readily worn out itself.

It will not be possible, nor advisable, to go deeply into the minute details and variations of structure, since such treatment would necessitate the use of extremely tantalising scientific names. My remarks will be based upon a broad consideration of the subject, to do justice to which a large volume, prepared by a skilled naturalist, would be required. None the less, the study of skeletal phases—the bones, with special reference to those of the skull and their relationship with the beak—would prove very illuminating.

The chief work of a beak is to procure food and transfer it to the crop, where it undergoes a preliminary treatment before entering the glandular stomach and gizzard. Therefore, no teeth are needed, as is the case with mammals and those animals which crush the food to a pulp in their mouths. The cracking of seeds or grain is a process hardly on the same line of action as chewing.

The interior of a fowl's beak is comparatively soft, though of fair hardness as things go. Being of the nature of a bone, however, it would soon crumble away during a bird's life if it had no exterior protection, such as is afforded by the shell of horn to which reference has been made. This latter substance may be likened to that of one's finger-nails. Several pieces of bone are sometimes united to form a single jaw; but this part of the topic is too technical to be further dealt with.

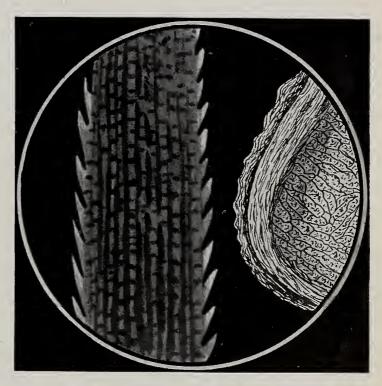
If the reader will refer to Fig. 1 he will see that the shell of horny matter, indicated by the black line, is comparatively small in amount when compared with the remainder of the beak. Just underneath this shell is a layer of substance consisting of a transition from bone to horn, so that it is practically a mixture of both. It would not, however, be sufficiently hard for the purpose of protection by itself. The main mass of the beak is composed of bony matter interspersed with scraps of horn to give it rigidity.

We must not forget that if birds were compelled to masticate their food in their beaks they would often be deprived of requisite amounts of Let us imagine that a bird has seized a worm or insect, and is dealing with it by means of teeth. We can understand that the time available to the bird for capturing further supplies would be considerably shortened unless it could at once Moreover, opportunities would be missed if the bird continually had its mouth full of pulped food, which would fall out if it attempted to pick up another lot. By reducing the food in the crop, instead, the beak is ever-ready to probe about in search of something to eat. These traits are, of course, passed on to our poultry; though being fed by their owners, they could generally dispense with such hasty, continuous habits, and take their meals only at stated intervals.

I wonder how many people have given a thought to the absolute needs of a duck's bill when the bird is swimming on the surface of a pond and frequently dives its head below after some nimble aquatic insect or a frog? The duck has to seize the creature rapidly, while its capturing organ is entirely submerged, with the consequence that it gets a mouthful of water, which is not always acceptable as a drink, especially when the full bulk of repeated quantities is borne in mind. To open the beak for the purpose of draining off the water would be a practice allowing the captive to escape. To obviate this disadvantage, the flat bill is furnished with a series of thin cross plates, called transverse lamellæ, and these serve as an effective filter.

Geese also possess similarly contrived beaks. No doubt readers will have noticed that the beaks of geese and similar birds are provided at the extremity with a kind of claw or nail-point. This is scientifically called a *ramphotheca*; and mention of this name will explain that I could have made this article unreadable to the ordinary man if I had employed words which are freely, and justifiably, used by scientists.

Although no teeth are present in birds at the present time, remains of them have been traced in some species examined by painstaking scientists. These patient men have discovered that the embryo young of some parrots are provided with papillæ, or small elevations of the mucous membrane of the jaw, partly encased in dentine, which



No. 3.—A magnified pinhole view of a portion of common grass, showing the siliceous teeth, which would soon wear out a bird's beak if it were not covered with horn, as in the right-hand object, which is an edge of a cock's upper beak.

is the special substance beneath tooth enamel. The fact that extinct, or very rare, bird-like forms are supplied with teeth lends support to the theory that with the advance of evolution from the flying reptiles (the ancestors of the present-day types of birds) to our domestic fowls, teeth have been gradually eliminated, while internal parts were correspondingly perfected.

While on this subject of teeth, I have a surprise for the majority of poultry-keepers, few of whom know that chickens, for a definite period prior to birth, are provided with a prominent tooth. This appears near the tip of the upper part of the embryo beak, and it is very prominent. If an unhatched chick of about fourteen days' incubation is removed from the shell and its membranes, this "egg-tooth" will be very distinctly observable. I will say no more about

the object now; but having, I hope, whetted readers' interest in the subject, will leave them to find out for themselves to what extent the tooth is employed in the liberation of the bird from its confinement, and what becomes of it afterwards. Breeders will have every opportunity of ascertaining what happens.

The peculiar shapes of the beaks can be gathered by making closer inspection than is customary among poultry - keepers. Most people would, I daresay, believe that the two halves con-

stituting a beak were simply a pair of scoops of fairly regular, semi-circular section, forming a kind of tube when united. That they are peculiarly fashioned may be seen by referring to Nos. 1 and 2 illustrations, where a thin cross slice from near the nostrils and comb is depicted on two scales of magnification. The very hard, horny, protective layer is represented by the black outer line, which makes quite an extraordinary pattern, corresponding with the grooves and ridges of the palate and surface.

BREED, STRAIN, AND ENVIRONMENT.

A STUDY OF THE FACTORS MAKING FOR PRODUCTIVENESS.

By EDWARD BROWN, F.L.S.

N Italian correspondent has invited an opinion as to whether breed or strain is of greater importance in respect to productiveness. The question here raised is one which presents very great difficulties, as actual data is unavailable. It is with considerable hesitation and diffidence that the following observations are submitted, owing to the absence

of positive knowledge on this important subject. We have been accustomed to hear and read that strain or family is of greater importance than breed. That is an easy way of dismissing a question of which little is known. All pedigrees, human and animal, are built up on the assumption that such is the case. It would go ill with some of our cherished privileges were it proved to be incorrect. The Utility Poultry Club, in connection with its laying competitions, states that "good laying is a question of strain, and not of breed," which is an assumption yet to be proved. We are all apt to dogmatise in this manner. Such declarations, however firmly and honestly they may be believed, do not settle the problem. The more we probe, the more evident are considerations of which we were totally ignorant. Had the statement quoted been reversed, and made to read that "good laying is a question of breed and not of strain," it would have been equally doubtful. Those whose interest it is to exalt the value of strain or family, whose "geese are all swans," may dismiss the matter in this manner. Such does not, however, settle it, either theoretically or practically. There are considerations involved which lead to the conclusion that a bald statement of the kind quoted reveals but a part, perhaps a very small part, of the truth. It may be one of those breeders' fads which are frequently very misleading. My own view is that breed and strain and environment are all intimately associated, as are feeding and general management. We want in this direction, as in many others, to get rid of preconceived notions, and inquire into the facts of the case, so far as we know them.

In the absence of definite and reliable information as to the productiveness of fowls in the countries of their origin, it may be assumed that the average in eggs or flesh is fairly even, when the birds are bred in a semi-natural manner, apart from selection on special lines. By this is meant that there are limitations to the changes induced by domestication. It may be accepted that under favourable conditions the number of eggs laid by each individual hen will be multiplied threefold, and in other cases the size of body will be increased by fifty to one hundred per cent. where the natural food conduces to that result, as compared with the wild progenitor. Whilst there are exceptional layers and fine-fleshed chickens met with in all countries, these are comparatively few. So far as my observations have gone these show that, apart from specialisation, the great majority of hens kept upon ordinary farms in other countries do not produce more than seventy to eighty eggs per annum, and that few fowls reach more than 5lb. to 6lb. in weight of body. The exceptions met with do no more than prove the rule. In this connection I cannot speak as to Asia, whence we have received the greater number of large-bodied fowls. How far these are the result of special breeding or of environmental influences, it is impossible to say. Possibly, nay, probably both have had a share in the result. Up to this point, therefore, it would appear that breed is of the lesser importance, for, if what is here stated be correct, it was not until the application of selection on rigid lines, with the object of securing prolificacy or enhanced flesh development,

that greater results were attained. This at once leads us to the question of latent qualities, which is discussed below.

We are, however, at once faced with a difficulty by no means easily overcome, namely, that the introduction of a new type or breed, either by importation or combination of existing races, yields remarkably uniform results. Variations there Nature works with plastic will always be. materials. A hundred influences may be at work to bring these about, of which we know nothing. It is well known that a breeder may sell ten lots of pullets of the same breed, strain, and age, to as many customers, every one of which will give different records. He may rear a hundred pullets from the same parents, under like conditions, and whilst the average laying will be uniform, the variations in this respectmay range anywhere from 50 to 150 eggs. Or he may grow fifty chickens, and not more than half a dozen will weigh exactly the same when killed for market. The question has often been asked, and, so far as I am aware, never answered, "What are the records of pullets bred from hens which have been heralded as marvellous layers?" If the contention that "good laving is a question of strain and not of breed" were correct, then there should be no difficulty in giving a satisfactory reply based upon actual facts. It must not be thought that the value of good layers for breeding purposes is here contemned, though the disposition of late years has been to exalt the influence of individuals at the expense of the breed, and even of the family. That is merely an extension of the idea generally set forth. If either were capable of proof, a 200-egg hen would be worth its weight in standard silver, whereas I question that she is worth buying for her weight in iron, or that the eggs laid by her will do anything to help forward productiveness. A common mistake is made in assuming that heavy laying is modern. Nearly thirty years ago I was interested in an experiment in which a dozen White Leghorn pullets gave an average of 156 eggs in their first laying year, and that within less than a decade of the introduction of the breed into this country. That could not be, and was not, attributable to strain. Other factors must have conduced to the result. Some of these extreme layers are merely mutants. It may be accepted that the unity of variability is not the individual, nor is it the family, but the race. Battles are not won by the one or two heroes who win the D.S.O., though these may help beyond their numerical importance, but by the means of the entire army.

In speaking of strain or family it may be well to inquire what is meant by the term. Usually it refers to a few, in some cases very few, generations bred along the same lines. How many of our utility fowls conform to these requirements?

Not very many. Even with these the lineage is not what can be called pure. We should remember that within ten generations every specimen may have 2,046 ancestors, that each bird is but a bundle of influences handed down to it, and that latent qualities and characters may cause reversion to an ancestral type unknown of and, therefore, unsuspected. As Professor Eugene Davenport says, "The differences that do exist within the same family serve to show the wide divergencies possible with the same hereditary elements, although, in studying adults, some allowances must be made for differences in development due to external causes." There is a further point which demands attention, namely, that families become exhausted much sooner than do breeds, due to the fact that the former are usually selected much more closely than are the latter, in which case the reserves for maintenance of virility are smaller. As the selection for definite external characteristics are often antagonistic to productiveness, so the extreme or hasty development of the economic qualities leads to degeneracy by the tax upon the system. These are abnormal, and have to be paid for in one way or the other. It will thus be seen that whilst strain has a place, it is only one factor among many, and if unduly exalted may be harmful rather than helpful.

One point is frequently forgotten or ignored namely, the capacity for development in breeds. It is this capacity, whether in the direction of egg production, of flesh qualities, of maternal tendencies, or of colourisation of plumage, that we regard as of supreme importance. The fancier has realised the truth involved with the great majority of breeds. Either an ordinary foreign breed, or an occasional mutation, has been the basis of his work. Definite improvement is a very slow process, not to be measured by one or two generations. Perhaps we have been led astray by the comparative rapidity with which plumage, &c., may be improved, or apparently so, for birds exhibited are the exceptional. With a rapidly reproducing species like poultry the end in view may be capable of more speedy realisation than in the case of larger and slower growing animals; but the time required for permanently stamping the impress upon our fowls is considerable. And, as shown by the Maine records recently summarised in the POULTRY RECORD, it is evident that we have been working upon wrong lines. That was an attempt to build up a 200-egg strain, which hopelessly broke down. The racial or breed influences were supremely powerful. for development on the lines desired must be present or all efforts will be in vain. That is a question of breed and not of strain. It is doubtless correct that two men may obtain specimens of the same breed, the one of which by careful selection

and management secures a much higher average in, say, egg production that the other who works upon general lines, but the capacity must be there. I cannot but feel that the mistake made at the Maine Experiment Station by the late Professor Gowell was in selecting the Plymouth Rock, which does not appear to possess a capacity for maintenance of high average egg production. Its virtues are in other directions. The discovery and utilisation of what may fairly be regarded as latent qualities or possibilities is what we have to aim for. Without these, considering the limitations of time, our efforts will be in vain. We want the accumulation of functional activities of many years, even though these may not as yet have found expression. It should ever be kept in view that the latest added qualities are those first lost, and that strain influences are least permanent.

Which, it may be inquired, generally speaking, have proved most successful in productive qualities? So far as our knowledge goes, confessedly small, it would appear that for egg production the races — for in this connection family or strain does not count for much—which are the more prolific are those that for generations, perhaps centuries, have been bred under conditions and influences making for small size of body, for limited muscular development, and for activity of habit, thus giving full play to the reproductive organs, and making the least tax upon the system in order to support the frame and body. On the other hand, where flesh is more abundant, the conditions must have contributed to a larger skeleton, to the increase of muscle upon the sternum, and to that quietude of disposition which tends to abundance and softness of flesh. It may well be that the fuller development in either direction is never attained in the place of origin. depends upon other factors. The point to be pressed home is that, at this stage, it is the breed that counts, not the family or strain, for there is little or none of the latter. These are breeders' terms created largely for advertising purposes and for the exaltation of their own stocks.

Given the capacity for development, the latent qualities, already referred to, what are the contributory factors which engender their activity? Here, again, our knowledge is superficial and incomplete. To what extent the changed conditions exert their influence we are unable to state, but that this is powerful can hardly be questioned. Frequently has it been known that transference from one country to another, even from one county or district to another, has resulted in enhanced production. Sometimes verse is the case. Breeds which are normal in their original habitat often develop to a remarkable extent elsewhere, apart from artificial selection on special lines. The late Mons. Louis Vander-Snickt suggested that transmission from the south to the north—that is, from a warm to a cool climate—stimulates egg production, and that transference from north to south promotes flesh development, so long as the extremes are not too great. We know that migratory birds come north for the breeding season. If such be true it will explain, to some extent, why the Leghorn and the Minorca are better layers in Britain, in Denmark, in Australia, and in America than in Italy and Spain.

Environment has, also, great influence. already mentioned, specimens of the same breed and family give very varied results in different areas. True it may be that by efficient management the influence of what appear to be adverse conditions, though it is more than probable that these are stimulative, may be minimised and greater success achieved, than where everything seems to be favourable. Management, however, is not everything. I have sometimes wondered whether the harsh, arid, sandy lands of parts of Belgium and New Jersey may not have contributed to increase of number of eggs produced, though making for small size of egg. That, however, raises a question which cannot now be discussed. We may assume that environment is an essential factor in which strain counts to an infinitesimal extent.

Two other considerations may be referred tonamely, food and early breeding. As to the former, the stimulus of newer foods and greater abundance is probably great. To feed on right lines is everything to the breeder of table poultry, equally as to that naturally obtained and artificially supplied. Here, again, may be an explanation of variations in productiveness. An excess of food frequently reduces functional activity, whereas a change of food may stimulate it, though perhaps the influence is temporary. Upon that point we have much to learn.

Such evidence as is available indicates the importance of early activity of the reproductive organs, more especially in respect to egg production, though not absent in rapidity of maturity in table breeds. The more prolific animals of all species are those which come into profit at an early age. One lesson derived from laying competitions is that the hens which are late in commencing operations are usually the poorer layers, and *vice versâ*.

Whilst absolute conclusions cannot be set forth, there is enough evidence to show that strain has been unduly exalted. In my judgment prolificacy is determined by breed with the capacity for development, plus strain as a result of careful selection, plus environment, plus change of conditions, plus food, plus early breeding, and, perhaps, plus a score other influences of which little or nothing is known.



A DARK BRAHMA COCK.

A WORD TO THE WEALTHY.

By J. STEPHEN HICKS.

"A thing of beauty is a joy for ever."

OF late years that portion of the general public which goes to make up our British poultry world has had so unceasingly dinned into its ears the cry "utility, utility, utility," that as an inevitable result such of our breeds and varieties as could not, literally, "come up to the scratch" have had perforce to go to the wall. In this way we have lost, or, at any rate, practically lost, several of the handsomest fowls that ever graced a lawn.

No one who has ever viewed even a moderate specimen of a buff-laced or bluelaced Wyandotte, a partridge Cochin, a whitecrested black Polish, a tight little Aseel, or Jap Bantam (to name a wide selection) can deny that such specimens are, each in its own way, extremely beautiful and exotic. They appeal to the refined, artistic, or æsthetic sense, as the case may be, and because of this refinement it is a shame that varieties such as the above should be allowed to languish and eventually drop out of existence, as will undoubtedly be the case sooner or later with all of them, unless those can be found who will step into the breach, and study their interests by breeding good specimens, and thus popularising them once more.

It cannot be expected of the poor man or the breeder who has his living to make that he will turn his attention to such obsolete varieties. To such, the possession of beauty in their poultry is a small matter, if the money-making attributes are not also present, and one cannot, of course, attach blame for such views. No, it is to the monied classes, to our nobility and gentry, that this appeal is issued. In former years (and even nowadays, though far less so) it was quite a usual thing for the county gentleman to include amongst the sights of his estate, two or three pens of poultry (usually Brahmas, Cochins, or Dorkings). These would be housed in ornate and elaborate pens and runs with a roosting-house after the style of a rustic summer-house. Whether the methods of management were sensible, as we should consider them nowadays, or not, matters little; the fact remains that in those days such gentlemen would spend a good deal of money upon fowls that could not in any way compare with present-day specimens of the varieties

enumerated in the opening paragraphs of this article—compare, that is to say, from the point of view of elegance, for it is hopeless to attempt to compare past and present utility features.

The man of means can surely afford to let the question of eggs go by the board, though, of course, it is by no means a sine quâ non that if he bred "Violettes" or partridge Cochins they would prove hopeless as layers. Admitted that much skill is required in order to produce good specimens; even so, there are plenty of poultrymen in the market capable of breeding them for him, if the amateur is not sufficiently interested to superintend matters for himself, and surely 25s. a week in wages is not much to spend on the production of such handsome fowls. Let him, then, who has the means and the will, cast an appreciative eye over the short descriptions of the handsome poultry that follow, and, having picked therefrom the one variety (or more) that seems toappeal to him most, proceed to engage in the interesting pursuit of breeding birds as near perfection as may be. I write the words as near perfection advisedly, for recurring to the subject of ornamental paddocks, and so forth, for poultry, there is an undoubted tendency in the few cases where such luxuries are still indulged in by the well-to-do, to stock the said paddocks with thirdrate specimens of a modern production, such as the buff Orpington—and we all know how depressing the sight of a third-rate buff Orpington hen can be. What's worth doing should be done well.

BUFF-LACED AND BLUE-LACED WYANDOTTES.

In the former we have a strikingly handsome bird originating from a cross between gold-laced and white Wyandottes. It is not as might at first be thought a bird whose feathers are laced with buff, but a buff bird, the main crop of whose feathers are laced with white. The breeding of buff-laces is certainly no sinecure, and the greatest stumbling block is perhaps the constant cropping up of blue and black feathers which should instead be marked with white. Still they are pure Wyandottes, and should present much scope to the breeder who has time and a little money to spend upon them. Much the same remarks apply to the blue-laced or violette, which has blood relationship to the other, having probably originated as a

"sport," when some fancier was experimenting in the production of buff-laces. How artistic a well-laced violette pullet undoubtedly is! See the rich buff ground colour, with its even lacing of



A WHITE POLISH.

dark blue, and deny, if you can, that here is a veritable achievement of the fancier's art.

WHITE-CRESTED BLACK POLISH.

Here we have the very aristocrat of the poultry yard; a dandy, as it were, of the old school, blue-blooded, and of ancient lineage. You can see it in the very walk of the bird; besides, though no toll is paid for it, his family has always sported a crest, and a very fine one, too! What is required in a good specimen is a large white crest of a globular shape and with as few black feathers therein as maybe, the rest of the plumage being a glossy jet black. A curious feature of Polish is the absence of much comb, two tiny horns being all that is apparent, and these only on the closest inspection.

Most Polish varieties possess a beard or muffing, but this peculiar feature is absent in the white-crested Blacks. Partridge Cochins.

Another old-time breed; the antithesis, however, of the last mentioned in that it is enormous, clumsy (and yet stately in a way), and possesses a quantity of foot-feathering. In the latter respect it is on the well-kept, constantly-shaved lawns of the rich that partridge Cochins will keep themselves in the best condition. The brilliant colouring (gold-red and beetle-green) of the males makes a pleasant contrast with the more sombre brown tones of the females, though in the latter. there is required the most distinct and even pencilling, of a darker shade, on practically every feather. To breed standard birds of both sexes double mating is necessary, but if our county gentleman is willing to put up with colouring not quite so brilliant and sound in his cockerels, and pencilling not quite so clear in his pullets, one pen not specially mated should suffice for his needs.

ASEEL.

Here we have the extraordinarily tight-feathered and game little fighting cock of Asia, and there is little doubt that he can trace his ancestry back to times before the Christian era. Certainly there is no gamer bird, and though looking a small fowl in a show pen, the weight of an Aseel when handled is something prodigious, comparatively, so "close" is the feather and flesh.

No particular standard of colour has been fixed for the breed, the specimens seen being mostly spangles and sometimes whites. The only objection to keeping them as a show fowl is to be found in the extreme pugnacity of the males, even as chicks.

JAPANESE BANTAMS.

Again we have here one of the oldest varieties, for probably they had been bred for generations in Japan before being introduced to this country. For ladies and others addicted to cultivating dwarf poultry, nothing could be quainter or more attractive than the little Japs with their extremely short legs, their long and drooping wings, and their flowing tails carried almost perpendicularly. In colour, too, there is a wide selection to suit individual preference, whites being most popular, followed closely, however, by blacks, greys, and buffs. Breeding presents no very special difficulty, nor are the Japs delicate except on very wet or exposed situations.

And so the list closes. Of course, it could well be added to, but enough has been said, and the writer's purpose accomplished, if even one of the charming breeds mentioned is saved from ultimate extinction by a little patronage from those who alone can afford it—the wealthy.

COMBINATION.

PAST, PRESENT, AND PROSPECTIVE.

By JOSEPH PETTIPHER.

THINK it will be freely admitted on all sides that of late years there has been a marked trend in favour of those breeds of poultry that most satisfactorily combine fancy and utility. than one heated discussion has been waged in the Press and elsewhere as to the possibility or otherwise of an exhibition fowl being a good layer and table-bird, and the fancier has been many times accused of breeding only for feather. It has been suggested that in order to produce certain fancy points he will keep a hen till she is practically useless as a layer in order to get just a clutch of her eggs with a view to perpetuate those points. It is quite likely such cases are truly on record, but they are only units to the thousands who like a breed that will "lay well and win well," and of which the draft cockerels will come well to table or fetch a good price from the poulterer. Cranks will be found in all walks of life, and again the comparison of units to thousands fits the case of the few utility poultry-keepers who refuse to admit the benefits that the breeder and fancier of high-class exhibition poultry has conferred on poultrydom generally, as compared with those who freely acknowledge that they owe much to the fancier for producing and improving many breeds which are to-day most popular with the utilityite.

No one can deny that in the past the Asiatic breeds played a most important part in the foundation of several of the most useful and popular modern varieties. Where would that foundation have been had not the pioneers of the fancy—the fanciers of the "fifties" and the "sixties"—devoted attention to the breeding and improvement of the Asiatic? Much the same may be said also of the Dorking, another important foundation which the fancier of the past evolved from a barnyard mongrel into one of the finest table-fowls in In a rather later past the same remarks apply to Houdans, Langshans, Rocks, and other breeds which have in turn been popular fanciers' favourites and have, by careful breeding, been improved for the subsequent advantage of the utility poultry-keeper. The immense amount of improvement which the modern utility poultrykeeper has done by inventing and popularising the up-to-date breeding and management of utility poultry cannot be gainsaid, and is freely acknowledged, but he would have been fatally handicapped for material had not the fancier of the past and of the present provided him with something to work upon. Looking back on the past, it is obvious that those who imported or evolved new breeds and studied to improve them had an eye on combination. They wanted better layers and better table-fowls, and in order to obtain them they bred up to an improved and more uniform standard. It is not fair to take the crank on either side as a sample of the bulk.

Looking back, as the writer can do, to the poultry-keeping of the early "seventies," it is plain that from then till now there has always been a growing desire for combination, and it is equally evident that it grows faster and faster every year. Winning specimens still command high prices, but with the general bulk of purebred poultry there has been a gradual levelling up, which has tended to encourage this combina-The two things can and should run together — in fact, it is almost impossible to By breeding to strain and separate them. uniformity the utilityite better obtains dependable stock, and when in so doing a winner or an extra good specimen is produced he naturally avails himself of the opportunity to make a better hand thereof than it will fetch in the market or for a Thus he enters into the combination. It layer. is simply necessary to glance at the most popular varieties of to-day—such, for instance, as the Orpington, Wyandotte, Rock, Langshan, and the Mediterranean varieties—to note how greatly combination has advanced. If we look over the names of the winners in the various laying contests held under the auspices of the Utility Poultry Club from the time of their inception, some fourteen years ago, down to the present day we shall see that in numerous cases they are those who were at the same time winning prizes this variety, and it is consequently reasonable to assume that the same strain produced the winner and the layer. This would probably be even more evidenced but for the fact that in many cases people have neither the time nor the inclination to follow up competition in both ways. It is not because the possibility is not present in the stock. Admitting, then, that at the present time there is this tendency to a growing combination, what are its possibilities in the

future? What has been accomplished in the past is surely an indication of even greater things to come. Combination has by no means reached its limits. The determination of the poultry enthusiast, of whatever or whichever class, to persevere till he obtains what he seeks, is proverbial, and once smitten with the desire he stops not till he has reached his goal, and it is quite reasonable to assume that in the near future the Palace, Dairy, or Birmingham cup winner may be the individual to figure equally successfully as a record layer.

The fancier exhibitor is in many cases too content with the knowledge that his winning strains give him good utility results. He allows his utility lights to remain too much under the proverbial bushel. Clubs, and particularly specialist clubs, should do more to assist in this matter. The time is at hand when the publication of a standard, the issue of a year book and the holding of a club show, all good enough things in their way, will not be considered enough. They will have to institute laying contests for their members, so that each particular breed may compete alone and the varying qualities of different strains may be brought out. Such contests will not have to stop short at merely a laying record; they will have to embrace such things as progeny tests to prove how far any desired traits are transmitted to the offspring tests to shows the various effects on different styles of housing, feeding, and general management, and many similar trials. These specialist club contests are undoubtedly looming closely in the future. It is even questionable whether some such breed competitions might not come within the scope of the Poultry Club itself, and if the newly-proposed National Poultry Institute becomes an accomplished fact it should tend greatly to advance trials of this kind amongst the highest grades of pure-bred poultry. The time is probably close at hand when pens of fowls will be judged for what are termed fancy points—i.e., perfection in type and plumage, at the outset of a laying contest, and when breeders will breed up to win both ways with the same birds. It can and, we believe, it will be done. The more carefully a strain is bred to fixity of type the more dependable will it be to reproduce satisfactory utility characteristics. At present it is a very debatable point whether the heaviest layers in a laying competition can be relied on as the most dependable birds to reproduce similarly heavy layers. And the more high-class breeding is followed up on the standard lines of exhibition specimens-provided always that the standard followed is one calculated to combine the various qualities—the better will be results in both ways. As these things advance we shall see each year a still greater and more rapid increase in the combination breeding of high-class poultry.

ARE THREE - YEAR - OLD HENS PROFITABLE?

DATA FROM THE NEW SOUTH WALES LAYING COMPETITIONS.

By "STATISTICIAN."

THE Nine Years' Records (Bulletin No. 48) of the Egg-Laying Competitions at Hawkesbury Agricultural College and Experiment Farm, Richmond, New South Wales, by Mr. D. S. Thompson, contain much that is of interest. Probably the point of greatest importance is the fact that in the last year under review, completed on March 31, 1911, sixty of the birds which had been under observation for the two previous years were retained for a thir:1 period. As the report states:

For the first time in poultry history accurate data have been accumulated as to the productivity and value of third year hens as layers. The facts established the preconceived ideas of the majority of poultry-farmers, who have been prepared to stand by their opinion that the light breeds would excel the heavy ones in their third year. The actual result, however, is that the Black Orpington and Langshan quite overshadow the popular White Leghorn, and by giving an average net profit of over 6s. per hen have demonstrated their profitableness in the third year, provided they prove good layers in their first and second seasons. The best strains of White Leghorns were under observation in this test, and the verdict must be that the profit of 3s. 2d. per head which they earned does not warrant them being kept for the third year's laying.

In this third year's test 60 hens were included, consisting of 18 Black Orpingtons, 6 Cuckoo Leghorns, 6 Langshans, and 30 White Leghorns. The diagram which I have prepared (given on page 158) shows that in the first year White Leghorns were 1st (with an average of 210 eggs), Black Orpingtons 2nd (207 eggs), Cuckoo Leghorns 3rd (205 eggs), and Langshans last (198 eggs); in the second year the respective positions were: Cuckoo Leghorns 1st (163 eggs), Langshans 2nd (158 eggs), Black Orpingtons 3rd (156 eggs), and White Leghorns last (153 eggs), so that in these two periods not only was the production high, but varied to a small extent; in the third year the recorded figures are: Black Orpingtons 1st (125 eggs), Cuckoo Leghorns 2nd (124 eggs), Langshans 3rd (123 eggs), and White Leghorns last (106 eggs). The gross totals for three years were as follows: Cuckoo Leghorns 1st (497 eggs), Black Orpingtons 2nd (488 eggs), Langshans 3rd (479 eggs), and White Leghorns last (469 eggs). Here, again, the variations are comparatively small.

The final decision must be the produce value, in which direction the published figures are very suggestive, as seen in the subjoined table:

VALUE PER HEN OF EGGS.

First Year. Second Year. Third Year. Totals, £ s. d. E s. d. E

Whilst, again, the ultimate result does not differ very greatly, the lowest returns being only 7.5 per cent. below the highest, the reduction all round, and most evident with the White Leghorns, is very marked indeed. In the last named case it was not so much the drop in number of eggs as in the time produced. For instance, in the three months ending June 30, 1910, corresponding with our January, February, and March, the White Leghorns in the whole quarter averaged less than $1\frac{1}{2}$ eggs per bird, whereas in the same period the Black Orpingtons averaged nearly 16 per hen. That fact is important. A hen which lays in winter means more money. It was specially in that direction, as well as the fall off in number of eggs, that brought down the pride of the White Leghorns.

The figures given as to food cost are very incomplete. All the birds are classed together. Probably had it been possible to discriminate between the breeds the final results would have been more favourable to the Leghorns, enhancing the already high position of the Cuckoos and improving that of the Whites. I have, however, to take them as given, though experience is that the heavy breeds are much larger eaters than are lighter-bodied fowls. The food cost per hen is stated to be:

			S.	d,
First Year	 	• • •	 7	$9\frac{1}{2}$
Second Year	 	• • •	 6	9
Third Year	 		 5	8

This is a considerable drop, and as the first two years are very high there is possibly some other explanation, even though heavy egg laying must mean greater food consumption, and, where the birds are kept in runs with absence of natural food, increased cost.

What we have now to see is the profit per hen over the food cost in each of the years. I have, therefore, extracted the figures from this report in my own way:

PROFIT PER HEN OVER FOOD COST.

	H	First	Second Th			nird		Total		
	7	Tear.	Year.		Year.		Peri		iod.	
Breed.			S.			d.	£	s.	d.	
Black Orpingtons	14	0½	II	7	6	6	1	12	$1\frac{1}{2}$	
Cuckoo Leghorns	12	11½	13	I	5	7	1	II	$7\frac{1}{2}$	
Langshans	15	3½	8	8	6	7	1	10	$6\frac{1}{2}$	
White Leghorns	14	6½	10	6	3	2	1	8	21/2	

This experiment is valuable in that it does not appear to be really profitable, apart from any breeding value they may possess, to keep any hens as layers in their third year, when we realise that their place might be occupied by yearlings producing more than twice as much, or two-year-olds which will earn nearly twice as much, and that whilst the heavier breeds may leave a small profit White Leghorns fall below even that standard.

JANUARY NOTES FOR AMATEURS.

NEW YEAR'S DAY is celebrated in many fanciers' yards by the advent of the first chickens. This is the earliest date on which a fancier may legally hatch. chickens to be exhibited in young bird classes during the coming show season, although it does not follow that birds hatched a few days or even a few weeks earlier will not pass muster as chickens of the current year. It is impossible to tell the age within a few weeks, and so this matter has to be left, to a very large extent, to the honour of fanciers. As a rule none but fanciers trouble to hatch on New Year's Day, and they are chiefly professionals or extensive breeders. But many more people, and probably a fair proportion of amateurs, will be expecting their first chickens during this month, so that it is not too early to offer advice on rearing.

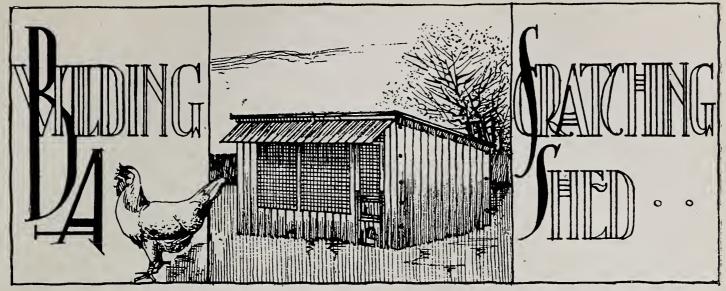
With regard to early chickens, hatched in what is usually the coldest month of the year, many people consider it impossible to rear out of doors, and put their chickens into greenhouses and heated or unheated buildings. This is all very well in its way. The chickens will be all the better for the shelter at the time, but one must remember that one cannot always keep them coddled up, and as we get cold and severe weather in this country right up to the end of March, and often in April, the trouble is that coddled chickens are apt to be very delicate.

Whether your coops have floors or not, it is desirable to have some loose litter. Either peat moss or chaff will answer the purpose, and it is not advisable to put too much into the coop at first, because some hens are prone to continual scratching, and the chickens may be buried until they are strong enough to get out of the way. With a good, quiet hen it is a good plan to use plenty of litter in the winter.

The relative merits of soft and dry food for chickens have often been discussed. Personally, we are quite satisfied to compromise between the two, but at this time of the year it is not advisable to give very much soft food. The best plan is to make a custard with milk and eggs, for this is nourishing and will not cause scouring. If given twice or three times a day, the birds will not need to be given cold water to drink until they are some weeks old, and this is the best way to avoid bowel trouble. For the rest, give a good, clean mixture of small grains, and don't be afraid to spread a little among some litter, for even chickens benefit by scratching exercise in cold weather.

DIAGRAM SHOWING AVERAGE LAYING IN HAWKESBURY LAYING COMPETITIONS FOR THREE YEARS.

				Totals 3 years.
18 Black Orpingtons.	First Year 207.	Second Year 156.	Third Year 125.	488
6 Cuckoo Leghorns.	First Year 205.	Second Year 168.	Third Year 124.	497
6 Langshans.	First Year 198.	Second Year 158.	Third Year 123.	479
30 White Leghorns.	First Year 210.	Second Year 153.	Third Year 106.	469



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COST OF MATERIALS.

Note.—Allowance made for waste.

	£ S.	α.
360 ft. run of 2 by 2 deal at 4s. 6d. 100 ft.	16	3
24 ,, ,, 2 by 1 ,, $\frac{1}{2}$ d	1	0
11 ,, ,, 1 by 1 ,,		4
3 squares sup. 1 in. t. and g. boarding,		
15s. 6 d	2 6	6
$1\frac{1}{4}$ squares sup. $\frac{1}{2}$ in. match ditto, 10s	12	6
No. 4 blocks for perches, $4\frac{1}{2}d$		
No. 2 runners for trap-door		6
Wire		0
Felt		0
Corrugated iron, 6 sheets at 4s. 6d	1 7	0
Painting with preservative and lime-		
washing (materials only)	5	0
Nails, hinges, screws, holdfasts, bolts,		
nuts, washers, and fastenings	10	0
		-
Cost of material, allowing for waste £6	5 14	7

Note.—If several sheds were erected at the same time, a distinct saving could be effected in the cost by the purchase of the materials in larger quantities.

The illustrations show clearly the method of constructing a scratching shed, and so far explain themselves that no lengthy description is necessary, and any amateur should easily be able to construct the shed without help, except when bolting together.

The shed is constructed in sections, viz.: in the main part: four sides, roof and door with lifting trap attached; internally with two sides to laying compartment, door and nests, two perches resting on rebatted blocks (the blocks screwed to boarding). Each side consists of head and sill framed to uprights with cross rail as stiffener, and intermediate upright to help support head and roof over. The back is formed in the same manner, but the front has the cross rail at a lower level and no intermediate upright (the door posts serving the purpose). The front is divided by a 3 in. by 1 in. board into two panels filled with wire netting (1 in. mesh), and the upper panel of door and the space above are also

filled with netting. The roof boarding is fixed to cross rails, two at the front and two at the back. They are spaced so that they form a groove into which the top of the front and back fit, and bolts are then put through to secure roof to framing of shed. Two other cross pieces are shown to strengthen roof.

The description of the construction of front applies to the two sides of the laying compartment with small modifications, which are clearly shown upon the drawing. The drawing also shows how the nests are constructed and the perches fixed.

All the framing will be 2 in. by 2 in. deal, and the boarding 1 in. tongued and grooved except to roof, where it will be $\frac{1}{2}$ in. matchboarding. The cross pieces on the shutter and lifting trap-door will be 2 in. by 1 in.

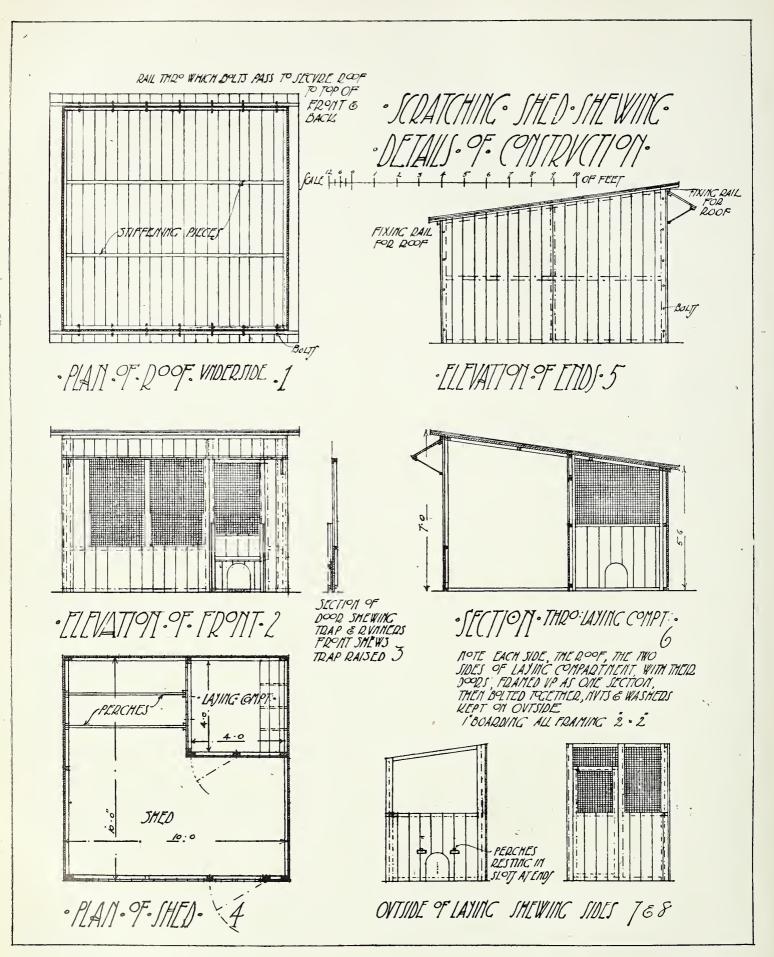
It will be noticed that the boards are reduced to half their width, and in some cases round panels where wire occurs, particularly on doors.

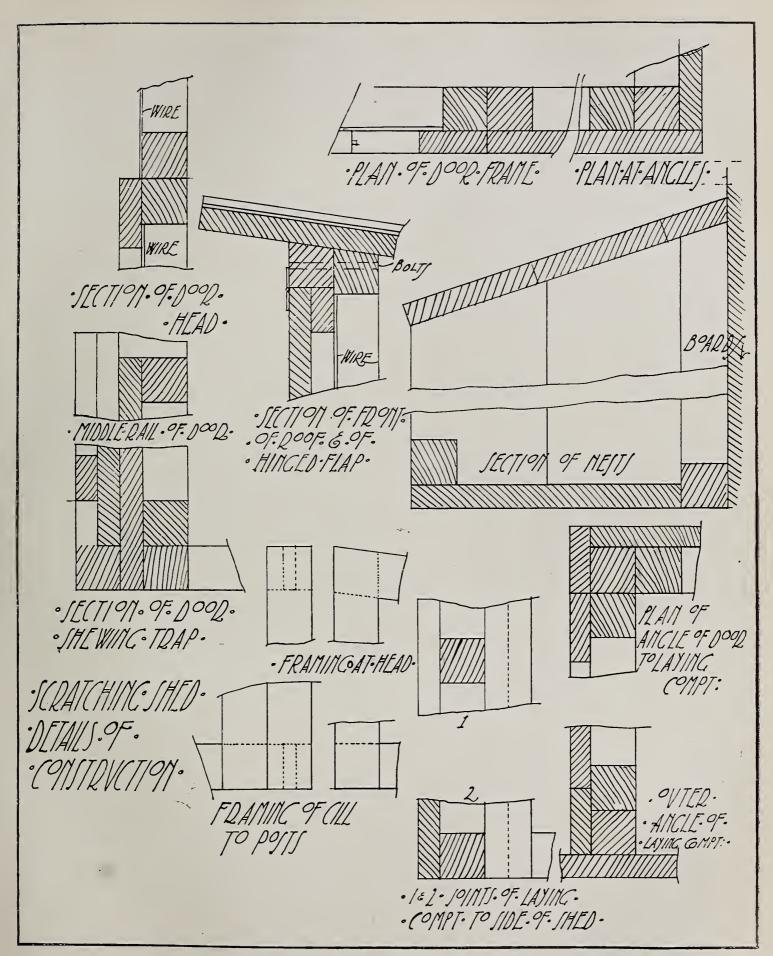
The roofing felt would run from side to side and be secured to boarding so as to allow plenty of lap to the felt.

The corrugated iron for the roof should be in sheets 11ft. long. Although, probably, the local merchants will not have these lengths in stock, they can be obtained from the makers, and the small extra cost incurred by using these sheets will be more than saved if one considers the extra labour which would be entailed if smaller sizes were used and the iron lapped. Secure the iron with bolts and washers to the rails of roof.

The whole of the woodwork should be treated with a good preservative before being put together and the inside covered with a hot limewash, when the shed is complete.

[We have on several occasions lately been asked to give particulars concerning the construction of a Scratching-Shed, so we have pleasure in reproducing the above article, prepared by a well-known architect, which appeared some years ago in the "I.P.R."—Editor.]





THE DUCK FANCY.

NE of the least pleasing features of the poultry world to-day in this country is the decline in the keeping of ducks. We are repeatedly being brought face to face with the fact that, save in a few districts, market ducklings are quite difficult to procure, and that classes for them, which used to fill fairly well at rural and agricultural shows, are now either struck out of the schedules or remain a source of loss to the executive. Twenty years ago there were good classes of Rouen at country shows, and these were exhibited by bonâfide amateur fanciers; but to-day a very different condition of affairs exists. If the Rouen were simply passing through a phase of unpopularity and its absence were counterbalanced by some new favourite, matters might have a brighter aspect. But to fill the Rouen's vacant place no breed or variety has come, for although the Indian Runner (of which more anon) has "caught on "to an extent almost unparalleled in the history of domesticated water-fowl, its increase cannot be said to balance the deficiency in the heavier breeds. There are some people, it is true, who gradually gave up the latter to go in for Indian Runners; but, broadly speaking, the great bulk of Indian Runner fanciers are men who have never kept other water-fowl to any great extent.

There is no doubt that great strides have been made in perfecting Aylesburys and Pekins from a fancy point of view. Indeed, it is probable that during the past few years we have seen specimens of these ducks which were nearer perfection than anything else in the Fancy. But the "crack" exhibitors of these breeds can be counted on the fingers of both hands. There does not seem to be that rank and file among duck-fanciers who are found in other classes of poultry-keepers, and who, after all, are the very mainstays of the Fancy.

Perhaps it may be argued that ducks do not appeal to the eve; but that contention does not stand for a moment when it is remembered that the names of many most honoured and successful fanciers are associated with the breeding of exhibition ducks. Rather am I inclined to think that the present aspect of affairs is due to the beginner or amateur—call him what you like—not being given a chance. Who, for example, has not seen the same owner taking all the cash prizes in a show year after year with monotonous regularity: Is it reasonable to expect the "small man" to enter his birds under such conditions, and so court certain defeat? No; he keeps his birds at home, or gives them up in disgust, and leaves the sparsely-filled classes to their foreseen fate. The result of this is that the whole world of ducks-both fancy and utility —suffers. That the same thing goes on in other branches of poultry I am aware; but it does not seem to be brought home to one with such force as in the case of ducks. The amateur exhibitor can often get a look-in somewhere at a show, save when he is exhibiting these water-fowl; but with the latter it is too often a hopeless and disappointing task to attempt to succeed. Surely there are many instances where the local and amateur Fancy might be encouraged by the introduction of "novice" or "limit" classes, or even by confining some specials to beginners or those who most need encouragement.

There is much to be said regarding the adaptability of the locality for duck-breeding. Only a small percentage of the people of a parish have the proper facilities for rearing exhibition ducks, especially Aylesburys and Pekins, but I am convinced that the facilities which do exist are not appreciated, and that, were this section given a timely fillip that would enable the amateur breeder to realise the fact that there is something in the duck Fancy for him, we should all be better off. When once the fancy side of duckkeeping is resuscitated the utility department would immediately improve. I do not pretend that the latter is dependent upon the former, but that we cannot extend the Fancy-provided it acknowledges the supreme importance of useful qualities—without affecting, for the better, the utilitarian side of the business.

And this brings me to the old, old subject of the influence of the Fancy on the economic properties of breeds—not that there is anything new to say with regard to it. I do not wish to lay upon the shoulders of fanciers the burden of having ruined the laying properties of this or the other breed of duck, and, by so doing, helped to send the latter into disrepute in utilitarian eyes, because (no matter whether he has done so or not) the fancier-breeder has every right to breed as he likes. He can go his own way, and the utilitarian, if he has any oil in his lamp at all, can go his. Unfortunately, however, the latter does not always see it in that sense. He buys his ducks for laying purposes from breeders of exhibition strains, and as he is sometimes disappointed, he immediately blames the Fancy. Some modern exhibition strains are no doubt as good as, perhaps better than, their predecessors; but they are those who are owned and bred by fanciers who recognise the extreme importance of utilitarian properties in their strain. Would that there were more of the same way of thinking!

The popularity of the Indian Runner is due to the fact that it is such a remarkable layer. Years ago, when I first saw one of these birds in a show, the late Mr. Henry Digby, who was judging, told me that the future of the breed was assured because of its grand utility qualities, combined, of course, with its peculiar adaptability for doing well in almost any situation so long as the birds had liberty. And, in his ever-remembered, jovial manner, he said, "They are as prolific as rats, and will breed on the top of a brick wall!" Scarcely any other breed of poultry has made such steady progress as the Indian Runner, but some of us are wondering whether that progress will be maintained. Is it not possible that too much attention is being given to type and style? At any rate, it is a great source of regret to me to notice that even markings are being sacrificed for type, and many specimens appear to be in danger of developing into that mathematical definition—" length without breadth." All breeders will agree that one cannot carry any point to excess without impairing some other point. But let us hope that the Indian Runner will not lose its prolificacy, and that utilitarians will, without further delay, secure their own strains of this valuable breed and stick to them.

I always refrain from finding fault with the Fancy if it can possibly be avoided, for it is, after all, the very rock foundation of our poultry industry. But when, as in the case of the Indian Runner, there seems to be some fear of the fancier's zeal carrying him too far, it is time to speak. The ghost of the last of the Indian Runners might even be a more fear-some thing to haunt one's dreams than the threatened spectre of the last survivor of Modern Game; but instead of this personal and somewhat selfish aspect of the future, the fancier should, while there is yet time, rescue the Indian Runner from sacrifice. There will be many readers who will not agree with my contentions; but, I ask, is there anyone who can seriously believe that prolificacy (which has been the making of the Indian Runner) is consistent with the type of duck now in vogue as "the ideal"?

A. T. J.

THE ROTATION OF PRODUCTION.

By J. W. HURST.

Fowls.

Although in the cycle of production the startingpoints may be many, and varied according to the several and different purposes, there is a certain fitness in picking up the story at the commencement of the vear as measured by the calendar. We can scarcely begin at any time without some retrospective considerations, and at this season the operations of the immediate future are, at any rate, more crowded than those of the moment. Following the acceleration of the Christmas season, the present is a period, if a short one, of comparative slowness. As a matter of fact, however, we have already recommenced to do all over again work similar to that which we have but recently concluded. The production of eggs for incubation, as well as for table, should be in full progress, and some results of early hatching should already be apparent in coops and brooders. But with the recommencement of any such process of production there is a certain quality of newness, in proportion as we attempt to apply the experience of the past. We have learnt the advantages of soft, warm, morning feeding for egg-production; that there is a difference between stimulation and forcing; that maize may be carefully used but easily abused; that the oat and preparations of this grain are relatively safe feeding stuffs, and so forth. We now have the opportunity for comparing the results of more careful management with those of previous mismanagement, and we may see how the fitness or otherwise of the breeding stock affects the characteristics of the progeny. Those who are entering upon a new rearing season will seek a fresh rearing-ground, where other fowls have not run recently, where the herbage is short, the slope or drainage favourable for winter occupation, and where the youngsters will not be exposed to all the winds of heaven. Those who have been unsuccessful with the large brooding contrivances, or have been witness of their disadvantages, will wisely adopt smaller foster-mothers, and all who have broody hens available will doubtless prefer to use them before having recourse to artificial means. In these and many other similar directions there are few who escape some novel feature in the recommencement of productive operations.

Ducks.

After hens' eggs and chickens, the next immediate interest centres in ducks and their progeny, and in duckling production there are many who must unlearn ancestral methods before they can profitably participate in the supply of modern requirements. That the demand price has tended to decrease whilst the total production has increased is a factor to be faced, and the volume of the demand undoubtedly waits upon a more general levelling up of the produce. It is very necessary to "speed up" production in this department, to hatch the stock birds early enough, and so rear them that they will lay early, and to grow the ducklings rapidly when they are hatched. There are too many "country ducks" and too few "Aylesbury ducklings" sent to market, and the trade use of the breed name may serve to remind us that the market-Aylesbury type of bird is the best for the purpose. Many of those who have gone astray after other breeds' are finding it convenient to return to their old allegiance, and those who have a good strain should be making progress now. The reiteration of facts about demand may be so long continued as to be hopelessly and disastrously out of date and misleading, and we have passed the stage where it is either wise or truthful to instance the enormous prices paid for ducklings produced in the Vale of Aylesbury, or to advance the argument as a fillip to novices. If recent experience has taught us anything, it is that reasonable prices are obtainable for first-class produce, seasonably marketed, and that it is essential to produce size, weight, and quality in birds that are still ducklings.

GEESE.

These birds should be coming into profit again before very long, a fact that should be remembered throughout their unproductive period, and more particularly during this month, if eggs are wanted next. Although they generally lay the larger proportion of their eggs in March and April, the yield gradually decreasing during May and June, they should—if well managed begin in February. But, in common with other stock, their neglect at any period is uneconomical. It unfortunately happens that geese are too frequently out of condition in winter, as the result either of a scarcity of food or of an excess of food of an undesirable character, no particular thought being given to their requirements. It is perhaps questionable how far prolificness and early laying in geese may be influenced and regulated by systematic selection, breeding, and management; but it is a conclusion of practical experience that, unless the treatment of these birds is conducive to production, the commencement and duration of the productive period—and the hatchability of the eggs laid—will be inimically affected.

TURKEYS.

To put it shortly, the remarks relative to stock geese apply, *mutatis mutandis* (as the lawyers would say), to stock turkeys, the chief necessary change being with regard to the beginning of the laying season; but although in this case we may not expect eggs until March or early April, we are risking delay by neglect in January.

A GOOD HOME-MADE 'TRAP-NEST.

By H. V. TORMOHLEN.

THE illustration shown gives a fair idea of a trapnest that anybody can make in a little while with only a hammer and saw for tools. Of course, if you have many hens you will have to make several nests to accommodate all, and then all the other nests must be closed or broken up.

The trap-nest has been quite an important factor in building up strains of heavy layers among most of the popular breeds to-day. The up-to-date poultrykeeper has insisted upon knowing just how many eggs a hen could lay in a year, when the statement was made that she was a good layer. Then, with definite figures and a standard to go by, made by the best layers in a large flock, he has insisted that it was possible to have a whole flock of layers as capable of turning out a great number of eggs as the few heavy layers that he started in with. What the Babcock test has done for the dairyman in eliminating the non-cream producing cows from his herd, the trap-nest has done for the poultryman in eliminating the non-layers from the flock of hens. Using the trap-nest, the breeder, by a process of elimination and culling each year, breeds from only the best layers in his flock, and has slowly increased the average egg yield per hen until it is a third more than it was twenty-five years ago.

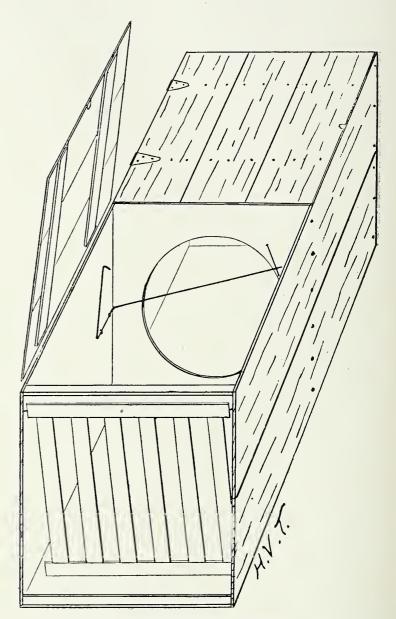
The small fancier and back-yard poultry raiser has taken more interest and has been more successful along this line as he has had only a few hens and a limited space. He knew just how many hens he had and how many his neighbour had, and the neighbourly pride in getting more eggs per hen from his flock excited more care and interest.

The trap-nest is made in two compartments. The box proper is fifteen inches square by thirty-two to thirty-six inches long. The hole or opening between the compartments need not be round as pictured unless you care to make it so, but it should be just large enough for a hen from your flock to pass through easily. The larger breeds require a larger opening, of course.

A large stiff wire is bent in the shape indicated, and the part passing over the opening is made to work freely up and down under the wire guards held by the small staples, the whole stiff wire assuming a lever action. Remember the wire must be stout enough that it requires some strength to bend it into the necessary shape and so that it will not give or bend when put to use. The joints or elbows must all be rigid.

With the trap-door caught up on other arm of the lever the hen passes under the wire lever into the second compartment and into the nest proper, her back gently pressing against the wire rod across the opening and raising it, and at the same time sliding the other end of the lever out from under the trap-door. The first compartment should be made a little longer than the trap-door is high, in order to prevent the door dropping on the hen's back before she gets quite into the nest proper, for the action of the lever is very quick. The wire arm over the opening

should be placed high enough so that the hen will naturally try to pass under it instead of over it. Each hen should have an aluminium or copper leg band, with a number on it, on one of her legs. Then, as you release the hen, you can put the egg down in your memorandum to her credit. Sometimes the hen will enter the nest for curiosity, and especially is this true when the system is first installed, but after the birds become used to it, they will seldom enter except to lay. To get the hens acquainted with the nests



THE HOME=MADE TRAP-NEST.

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the doors may be propped up for several days. This sort of a trap-nest is also excellent for sitting hens since you can release the hen to get her feed and trap the door. Then, after she goes back on the nest she shuts and locks the door after her, and other hens cannot enter to bother her or break the eggs. You can also easily catch the hen which is an egg-eater with the trap-nest, as some of the broken egg shells will tell the tale. The best time to install the trap-nest system is during the late autumn or winter, before the pullets get accustomed to other nests.

FANCIERS AND FANCY MATTERS.

By WILLIAM W. BROOMHEAD.

The Campine Fowl—White Rocks—Rhode Island Red Colour—Should They?

THE CAMPINE FOWL.

In a recent issue of the American Poultry World appeared an article by the Rev. E. Lewis Jones, secretary of the Campine Club of England, the most sensible article on the breed that I have ever perused. Some of us who have gone carefully into the question of Continental breeds of poultry have imagined that the Campine and the Braekel, although somewhat resembling each other in general characteristics, colour and markings, were distinct species. On this point Mr. Jones says that the English use of the word Campine covers both Belgian, Campine and "The Campine after importation," he writes, "flourishes under the careful nurture given to our exhibition birds, and becomes a Braekel in size with Campine characteristics and type. That is the bird we breed for. . . . The English Campine does not really coincide with either the Belgian Campine or the Braekel, but is distinct." He also goes on to explain why the English club altered the standard of the imported cocks to bring about the present fashionviz., the cock marked on the body as a hen. Those fanciers who had the matter in hand did not want a double mating breed, i.e., one pen for breeding exhibition cockerels and another for breeding exhibition pullets. Hence it is now possible to breed show specimens of both sexes from the one mating. The Campine is, therefore, a breed that should appeal to beginners, and more especially since, to again quote Mr. Jones, "The ideal bird has not yet been found, and we must hope never will be found, for perfection spells decay-their end."

WHITE ROCKS.

Of recent times the white Plymouth Rock has been again revived, and if all goes well it will rank with the White Wyandotte in the near future as a popular variety. That the two have something in common I do not doubt, and that they can be, nay, have been, bred from the same mating is true enough. And more than one single-combed sport from the White Wyandotte has won as a Rock, and won not only in strong company, but under Plymouth Rock Club judges. That the White Rock was crossed into some strains of Wyandottes I have not the slightest doubt; nevertheless, it is well known that all rose-combed varieties of fowls throw single-combed specimens. In my own yard I have bred several such birds. This year I mated a line-bred White Wyandotte cockerel with two single-combed hens bred from my pen of White Wyandottes in 1909. I produced over a score of chickens. Three of the five cockerels had good single-combs-they made quite excellent table fowls -while almost fifty per cent. of the pullets are so adorned, while two or three of the latter birds are true Rocks in shape of body, length of leg, and head points. It is, of course, in general characteristics that these two White varieties should differ, the true Plymouth Rock and the Wyandotte being of quite distinct types. But do they? We have heard much of late of White Wyandottes failing in shape, and this was noticeable even as recently as at the Dairy Show. But now that a club has been started for the White Plymouth Rock, poultry judges will have to use their best endeavours to see that the two varieties are not confounded, at least that, as far as possible, the Wyandotte sport is not permitted to win as a Rock. This club, one of the latest, had a fine send-off at the Dairy. Her Grace the Duchess of Manchester is patron; Mr. C. Thellusson, president; Messrs. J. Marsden Chandler and Bert Kirkman, vice-presidents; and Mr. J. E. D. Moysey (Venton, Totnes, Devon), the hon. secretary and treasurer. The club hopes to hold its first show at a provincial fixture in the Midlands during next month.

RHODE ISLAND RED COLOUR.

Some discussion has taken place of late as to the effect of the sun on the plumage of Rhode Island Reds. One writer declares that the sun fades the colour; yet in the same letter he says that everyone who has had any observant experience of white fowls, whether Wyandottes, Leghorns, Game, or otherwise, or Silver Grey Dorkings, or even Plymouth Rocks and Coucou de Malines, will know from undoubted testimony that exposure to the sun darkens the lighter parts of their plumage; in fact, the white birds come out a distinct ivory tint. That long exposure to the weather, not necessarily to the sun, does have a tendency to change the colour of some fowls is, of course, an acknowledged fact; but it is a mistake to imagine that the same holds good with all strains. I have at present some White Wvandottes which are as white now—and a dead white, too—as they were when first adorned in their adult plumage, yet they have been, and are, out in all weathers and have not had a day's shading. Colour has much to do with strain, no matter what the breed, although washing in experienced hands often makes a lot of difference. Reverting to the Rhode Island Red, I wonder how many judges, beyond the Red specialists, handle the birds for under-colour. Personally I give preference to those specimens which are red to the skin, despite a blemish or so maybe in surface colour; yet some winning reds I have examined have had sooty and almost blue under-colour. It should not be, despite the black ticking that is permitted in the neck hackle of the hens.

SHOULD THEY?

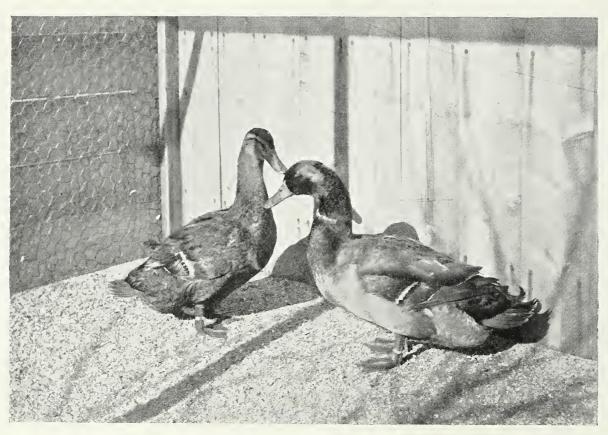
It is becoming a common occurrence at shows to see the names of big exhibitors figuring in the classes for Cross-bred Hens for Laying Purposes, and this year on more than one occasion I have seen as many as four names of well-known fanciers among the prize-winners in such classes. Granted the entry for the laying hen class may fill up an odd corner of the hamper, as one exhibitor told me as his excuse for showing in that class, but is it quite dignified on the part of a man who can breed winners of recognised fancy varieties to poach on the ground that candidly belongs to the cottager? The classes for cross-bred hens for laying purposes are to encourage people to keep fowls of a good laying type, and, in my opinion, such classes should be left entirely to utility poultry-keepers. Not many years since it was the custom, in

the Midlands and North of England at any rate, for rose-combed Blue fowls to head the laying hen classes; and even to-day such birds are generally near the top of the list, if not actually awarded the first prizes in them. Since, however, the rose-combed Blue has been raised to the dignity of a show bird, and has-or had, since little has been heard of it of late—a club all to itself, most judges recognise that the variety is not for entry in cross-bred classes. However, I think it is a great pity that acknowledged fanciers should compete for prizes that are intended for cottagers and small men, and it would be a good move to have the classes for cross-bred hens for laying purposes open only to small poultry-keepers by making it a condition that fanciers are debarred from entering therein.

BLACKHEAD OR COCCIDIOSIS.

By HAROLD LEENEY, M.R.C.V.3.

THE turkey disease which was described at some length in a former number of The Illustrated Poultry Record, and known in America by the first of the names given above, has been the subject of investigation by the Canadian Government, and a report is to hand in which the Dominion Bacteriologist provides what is believed to be a remedy. The policy of stamping out rather than of medical treatment is advocated by the best authorities, and applies particularly to barn-door fowls of little individual value, but there will be many instances in which the value of prize birds makes it desirable to attempt any



DANISH ROUEN DUCKS.

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DUCK-BREEDING IN DENMARK.

By W. A. KOCK.

DUCK-BREEDING is not particularly popular in Denmark. Many of the farmers have a few ducks, but generally the ducklings are too old before they are killed, and, at the same time, they have cost too much to produce. Large duck farms, as in America, and duck-breeding in the same manner as in Aylesbury, are practically unknown in Denmark.

The most common breeds kept are Pekin, Rouen, and Indian Runner ducks. Aylesburies do not seem to do well in our country.

The photo is taken from one of the large poultry shows in Denmark, and shows a pair of Rouen ducks as they are commonly met with in Denmark.

At the last census in the year 1909 there were 791,797 ducks in Denmark.

form of medication that promises success. The addition of hydrochloric acid to that already provided by nature in digestion seems a very simple proposal, and vet, if we may judge by the results obtained by the State bacteriologist above mentioned, it would seem that the coccidia perish by its employment or their effects would not cease, and the birds recover from what is commonly a fatal malady, and not confined to turkeys, but affecting all gallinaceous birds in domestication where once it is introduced. Hydrochloric acid in a dilute form has been prescribed for various forms of indigestion both in man and beast for generations past, and was known to have an inhibitive effect upon certain intestinal ferments, although the organisms causing them had not been suspected. We can find no reliable analysis by which the amount of this acid in birds is estimated, but in herbivorous animals it varies from one to two per thousand, and in carnivora to twice that amount.

Experiments made upon dogs prove that the acids and the peptones are produced in such proportions as are likely to be required, and that a telegraphic communication, as it were, from the mouth tells the stomach what to expect and prepare for, but that only a limited quantity of the most needed substance can be prepared at short notice, while willing to prepare a daily supply of the one or the other in excess of previous requirements when a change of food is found to be more or less permanent. The experiments were too cruel, as well as requiring too much space, for description here, but they definitely proved what was generally believed—namely, that the digestive organs ean accommodate themselves to almost any sort of diet provided the change is not too sudden. Reference to these facts is made in the present connection because the thought occurs to the writer that we may possibly have departed too much from natural conditions in the rearing of poultry, and induced a gastric secretion unfitted to deal with disease organisms which formerly met their death in a more acid fluid. Wild birds may be assumed to eat more animal food in the form of insects than those in domestication, and would secrete more acid to deal with such a diet. The fact that wild turkeys succumbed when in association with infected tame birds may be used as an argument on either side. They would bring a more acid digestion, but this would soon be lost when sharing a farinaceous diet with others. Wild birds, wild animals, and wild men, we know, are all more susceptible to the diseases which have in some measure lost their virulence towards the domesticated and the highly civilised. Be this as it may, we are offered at infinitesimal cost a remedy worth trial in this country. A dram of undiluted hydrochloric acid with a quart of drinking water is the mixture advised. The Professor referred to obtained turkeys from a flock in which deaths were daily occurring, and selected some of the worst and some of the best for experiment. The result appears to have been eminently successful, and those birds which had recovered to all outward appearances were killed and examined. The lesions were found in a retrogressive condition, and it is confidently believed by a number of independent observers who have treated their own flocks that a

remedy has been found. It is to be hoped that homebreeders will put it to the test, while not relaxing their precautions in segregating all doubtful cases and looking mainly to stamping out.

DANISH BREEDING CENTRES.

By W. A. KOCK.

ESPECIALLY among the small farmers is the trap-nest used more and more, but as it is not possible for all to undertake this valuable work, the poultry societies have formed breeding centres for the most popular breeds, where trap-nests are used and the chickens toe marked. From these places in different parts of the country poultry-breeders can get eggs for hatching and fowls of good economical value at a small price.

The photo below is taken from a breeding centre for Black Minorca fowls. All the fowls in the collection are descended from hens which in their first year laid 150 eggs or more. The Danish Minorca fowls are not so large as the English, while the combs and earlobes are commonly smaller.

Concerning the fowls at this breeding centre many of them have laid 200 eggs a year and more. They are of the American type, rather small, and of good colour and marking. After the birds have been trapnested for a year, running from November 1 to October 31, the best and strongest of them are used in the breeding-pens, one cockerel being mated to every ten or twelve hens.

The Poultryman's Equipment.

Mr. R. P. Ellis, writing in the Reliable Poultry Journal, says that: "Most people are not fitted by modern business training to undertake the management of even a small poultry enterprise," and "The poultry business calls for the abilities of a systematiser, a purchasing agent, an executive and a salesman, besides a poultryman, if it is to prosper and increase on sound business basis."



DANISH BLACK MINORCAS

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THE WORKING OF AN INCUBATOR

I T is, of course, perfectly true that those whose production makes the bulk of the supply of English poultry—the farmers and cottagers—rely almost entirely upon the natural method of incubation, but it must be remembered that the individual output of these poultry-keepers is comparatively small: and it is also true that, when the production of a single establishment exceeds certain limits, it is found that recourse must be had to artificial appliances, otherwise the production is uncertain, unequal, and insufficient to sustain the importance of the undertaking. The modern farmer is fast losing the prejudices of an older generation, and machinery now occupies an important economic place in all departments of agriculture. The agriculturist of the new era, understanding something of the importance of poultry production, is acquiring a fuller realisation of the significance of the incubator in relation to his output; and it is probable that the usual equipment of the farms and small holdings of the future will as inevitably include an incubator as a churn or a separator. Meanwhile those who have specialised have shown the way, and these notes are for the information of those who would follow.

It is probable that most poultrymen (but by no means all) prefer to use hens when they are available, although the one-time stock objections to the use of machines no longer hold good in face of laboursaving and more efficient devices; but, however that may be, hens are not always ready when wanted, and a shortage is sure to occur some time during the season. In such circumstances he whose experience has been gained with incubators of reliable makes never hesitates to turn to the machines; and after all, apart from the responsibility, the actual work involved is a trifling matter for the methodical man.

In the selection of a machine the choice is wide enough to satisfy (if it does not puzzle) the most exacting, and the comparison of a dozen or more illustrated catalogues will convince the most sceptical that the good points outnumber the bad; and that, as in the matter of selecting a breed for egg production, the most that can be said impartially is that there is no best. The analogy may be carried further, and it may be said that in these days of keen competition it is only the fit that survive; but, having said this, the decision must remain with the intending purchaser, whose resolve to employ an incubator implies intelligence enough to select the most suitable.

Apart from the method of heating, whether by tank or warmed air—the selection of either of which must depend upon individual requirements—the means applied to the regulation of heat demand some consideration, and, just as there are two principal types of machines, so there are two principal types of automatic regulators—the bar thermostat and the liquid thermostat or capsule. Whichever is used, the result of the action is produced in practically the same way, and the principle involved in both is the same, viz.: the regulators depend for their action upon the heat of the hatching chamber. A good machine has a good regulator, and, having implied that most are good, the application is fairly general; and when once a machine has been

thoroughly regulated in its new situation it will usually work better without undue subsequent interference. In this connection the question of situation is naturally an important one, and experience tends to the conclusion that books of instruction are not always reliable in this particular. Although there may be no need for a specially constructed incubator house, it should be realised that a room in a dwelling house is not by any means ideal for the accommodation of such machines. The special requirements include the possibility of the maintenance of a fairly even temperature, a suitable system of ventilation without the introduction of draughts, and a sufficient stability of structure to reduce vibration to a minimum. If these conditions exist in a cellar, without the drawback of any excess of moisture, such a situation will be found more suitable than that of a chamber in a dwelling, or any place in a range of farm or out-buildings; but if a cellar fail to meet any of the essential conditions, it is if anything worse than other situations. Despite the great importance of stability, and an equable external temperature, the most vital requirement is that of a constant and sufficient supply of pure fresh air; in an ill-ventilated chamber the oxygen of the atmosphere is largely exhausted by the lamp, to the detriment of the living germs within the machine.

The actual quantity of oxygen requisite during embryonic development is not very great, but the supply must be constant; and it appears probable that no cooling of the eggs is actually required to ensure the mere fact of hatching, and it is likely that the chief importance of the daily airing consists in the increase rather than the maintenance of vital force. However that may be, it is an ascertained fact that due attention to the cooling process, and some regulation of its period, relative to other factors, ensures the hatching of a stronger batch of chickens than is otherwise obtainable; and the best results are secured by the greatest amount of cooling that is consistent with punctuality as regards the hatching date—which is finally ascertained by experience and correct judgment.

The above are among the most salient points involved in the successful operation of incubators, but there are innumerable details—mostly referring to individual machines—which are as a rule succinctly dealt with in the directions supplied by the several makers.



A FLOCK OF ARGENTINA DUCKS [Copyright.

WHY INFERTILE EGGS?

By WILFRID H. G EWAR .

I T is just at this time, when maybe the first chickens are beginning to appear in some yards, that attention is involuntarily distracted from the all-important breeding-pen. Unless this is right, you will not continue to secure fertile eggs or strong chickens, and so you cannot afford to neglect it in any way. The care which was lavished when first the birds were mated up must be carried on to the time when the last eggs have been set.

Despite these general admonitions, how often does it happen that there is neglect after a time, and that this is followed by sterile sittings! In this connection, let me emphasise the necessity of testing all eggs about the fifth day. With practice this testing can be made to tell a very intimate tale. You take up an egg and find a dark, lively germ, which indicates that all is well. You may some other time test another egg, which, though forward in incubation, shows an opaqueness indicative either of staleness or, if you know to the contrary, of weakness. Or, again, you

may find a sitting full of quite clear eggs.

This latter is, of course, far the most serious phase. It points inevitably to some crucial defect in the breeding-pen—or in the breeders. What can this be? Let us set to work and find out. In the first place, is the situation in which the birds have their run a good one? Occasionally one sees breeding-stock enclosed in a blank, shelterless space up on the summit of a hill. While this may make for hardihood, it will certainly encourage neither egg-production nor fertility. In fact, such circumstances are fully calculated to put a stop to both. If it unfortunately happens that the only possible run is a wind-swept plot behind a man's house, artificial shelter must be put up, and that apart from a substantial scratching. shed. As good a plan as any is to procure half a dozen hurdles and to thatch these with furze, than which there is no better protection. Bind the furze with straw thongs and carry it well above the topmost bar. Lean three of these hurdles together so as to form a sheltered nook at either end of the run.

Are the sleeping quarters sound and warm—is there a good scratching-shed? Matters such as these may make the whole difference to strong fertility. Remember, birds must have a floor to their house at this time of year—the colony-shed will not do—and they must have some warm litter underfoot. See that the nest-boxes are sound, because a slight drip from above—if they are outside boxes—will keep the nest material permanently damp, and that will affect the hens. A draught through the house, too, may cause untold evil—and why are poultry-houses often so injudiciously ventilated? Fresh air expels bad air, and it should have ready ingress both in front and at the apex of the roof.

If, however, these questions of comfort have been favourably decided, there is that other matter of feeding to consider. Wrong feeding is in itself a dangerous factor, but overfeeding, I do believe, to be an even commoner source of trouble. Overfeeding entails lack of exercise, and the two together sap health, which means that they impair vitality. In some yards you see the adult stock standing about

heads on breasts, or complaining loudly and volubly. At feeding time the birds come forward listlessly, pick a bit, and wander away. A certain blueness about the comb indicates liver trouble.

How much better is it to under- than to over-feed! I have always contended that *one* good handful of food per diem, instead of the two commonly advocated, is sufficient for a fowl, and this, generally speaking, is the quantity I allow my own stock. Apart from that, of course, there may be improper feeding. A stimulating diet—spices, patent laying meals, and so forth—is most undesirable; nor is a heating ration good. The plainest possible food is, I am convinced, the best for breeders. Sharps and peameal mixed with biscuit-meal, and oats at night, can hardly be beaten.

Strange as it may seem to the novice, however, there may be the best of management and feeding, and yet blank infertility. This, in fact, very often happens in well-known yards. And why? Because there are inherent, or acquired, faults in the birds themselves. When the stock is obviously in perfect health, and yet the results are absolutely negative, then it may be assumed that either the cock or the hens is defective—more probably the former. are birds, we know, which are structurally unable to breed—apparently strong and virile cockerels. As a rule, however, the trouble is with second-season cocks early on in the year. I have known fine active specimens in the pink of health and conditionuseless for breeding until the end of March. Some such birds appear attentive to the hens, while others remain aloof and uninterested.

Cockerels, too, frequently prove what is known as "shy breeders." Usually, however, these are birds which really are not sufficiently forward for mating. The whole question of infertility is, of course, largely the result of artificiality—artificiality in immediate or in antecedent conditions. The individual bird, or its ancestors, may have been overshown or pampered and stimulated; but apart from this, I cannot dismiss the idea that injudicious inbreeding may be at bottom responsible. In this connection, let it be noted that never under the ordinary circumstances of farm poultry-keeping do we find a constitutional or a temporary infertility in the males.

Dead in shell is in itself an unmistakably clear indication—as a rule—of lack of vitality at the root of things. When, therefore, these signs manifest themselves, and if general conditions are satisfactory, the first act should be to change the cock in the pen. If a particular hen's eggs are found to be invariably infertile, then certain conclusions will at once be drawn. Let me add, however, a hint to those who can by any means contrive free range—try it and note the result.

Gold versus Hens.

Sir Thomas Culliman recently made a considerable stir at the Gold City, Johannesburg, by saying that South Africans seemed to think that the whole development of the country depended upon the little bit of gold taken out of the gold mines, but that was less in value than the total output of eggs in the United States. There are many comparisons of a like character which might be made with equal truth.

SOME GOOD TABLE VARIETIES.

By FRED. W. PARTON.

I T is a well-known fact that no one breed can possibly have developed to excess the characteristics that are possessed by both the heaviest laying and the finest table varieties. Everything is opposite, even to the conditions best suited for attaining the greatest perfection in each. The two types are entirely different. The ideal layer is a small bird, or perhaps it would be more correct to say that the ideal breed for this purpose is small. It need scarcely be said that this is not a quality to recommend itself for table purposes. The layer should be a bird of exceptional activity, while lethargy characterises the table chicken.

It is, however, with table chickens that we are now concerned, and with the requirements of a first-class specimen. There is always the danger that the production of the finest quality of table chickens should be neglected, since the demand for eggs is so large. The majority of industrial poultry-keepers appear to be concentrating their energies upon the production of eggs, to meet the ever-growing demand. Consequently table poultry is not receiving the attention it undoubtedly deserves, for the excellent prices to be obtained for well-fattened specimens should certainly give encouragement to the further development of this side of poultry culture. Since eggs are generally considered of premier importance, the nearest approach we are getting to first-class table chickens is the general purpose breeds, the best of which is the White and Buff Orpington. The non-sitters are not, of course, speaking of them as a class, to be thought of for their meat properties. There are two, however, which may be mentioned in this connection, since they are seldom regarded as of value on the table. The two breeds to which I would refer are the Scots Grey and the Houdan. Merely from the fact that these birds are classified under the heading of non-sitters it is taken for granted that they are useless so far as their edible qualities are concerned. It is, however, a mistake to take too much for granted, and to rely entirely upon the experience of others, without giving these matters a trial. The Scots Grey, although an extraordinarily good layer, is by no means to be scorned for its meat properties, and were it not for the fact that the majority of Scots Greys are non-sitters, they would undoubtedly be classed among the general purpose breeds. The Scots Grey is a very much heavier bird than its appearance would indicate; it resembles the Game in this respect, having no superfluous feathers, and, being a hard-feathered breed, it is a very deceptive weigher. In fact, the birds, especially the pullets, have a distinctly "Game" appearance. The chief table feature of this breed is the length of keel, which is enormous for the size of bird; it is also quite good in breadth, although not so broad proportionately as it is in length. In flavour, the flesh is quite as good and as white as is the flesh of the Dorking, which is considered so excellent in this respect. The Scots Grey develops and grows very quickly when kept under the conditions most conducive to success in rearing table chickens.

The Houdan is more widely known as a table breed than is the Scots Grey, although personally I consider the latter infinitely the better. At the same time I freely admit that the Houdan, despite the fact that it belongs to the laying group, compares very favourably indeed with the general purpose breeds in this respect. It is a large and square-bodied bird with white flesh, and it is well developed on its breast.

The ideal requirements in a table fowl of the best quality are smallness of bone, fine texture of flesh, white in colour, small amount of bone and offal; in short, a fowl that has the faculty of converting a large proportion of the food consumed into the right direction. Among the English table breeds, the Dorking



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A WELL-PLUCKED TABLE CHICKEN.

doubtless more nearly approaches this ideal than any other fowl we possess. It is large, very broad, and massive, carrying a great amount of breast-meat, with only a moderate quantity on the legs. The Dorking has probably been used as the basis for most of the best varieties of table fowls, and there is no doubt that any of the newer varieties that claim the Dorking as an ancestor have a strong plea for recognition. The Dorking is not, however, "every man's fowl," since there are only certain conditions under which it is possible to do full justice to it. In addition to this, there is but one specific purpose for which the chickens can be bred. The only place where it is desirable to keep the Dorking is on a light, sandy soil, with plenty of shelter, and only then in a mild part of the country. On any but a soil of this description growth is too slow, which is of paramount importance, since a table chicken's profit depends upon the age at which it is placed upon the market. Every day that it is kept

longer than is absolutely necessary, it is lessening the amount of profit. The sole purpose for which the Dorking may be kept-apart from fancy purposesis for the production of the very cream of table chickens. It is not everyone who can afford to keep fowls specially for this purpose, without regard being had to their laying powers; nor is it every person who has the opportunity of disposing of the best quality of table poultry. Moreover, few poultry-kepers have the ideal situation for rearing them. A substitute, therefore, must be found, and one which is hardier, and will consequently thrive under conditions where the Dorking would not, is a boon to many poultry-keepers. Further, a breed that can add to its table profit by the number of eggs it produces is also a matter of importance. Such a bird is the Sussex. It is very similar to the Dorking in many respects, and it has the virtue of being much hardier; but probably its chief recommendation is the rapidity with which it grows in its early stages. It is true that the quality of its flesh is not, perhaps, of quite so fine a flavour or texture, but at the same time these are very fine, and for ordinary purposes it answers admirably.

The Faverolles is also a capital table breed, for it is hardy, the chickens develop quickly, and it possesses excellent flesh. Moreover, the hens are good layers, and they produce quite a satisfactory proportion of their eggs during the winter months—a matter of great importance to those who are anxious to have a supply of early chickens. The Games—Old English and Indian—are not of much service pure; their great value is for crossing purposes. They have a remarkable breast development, which they invariably transmit to their offspring, even when crossed with another

variety.

MEAT FOR BREEDING STOCK.

THE nature of the food supplied to poultry is very largely responsible for the achievement of whatever end the poultry-keeper has in view. There are, indeed, few directions where feeding plays no important part. It is a well-known fact that both colour of plumage and colour of legs are influenced to a considerable extent by the food. This also applies to the yolk of an egg, for we have all noticed how the paleness is changed to a deep orange colour by certain diets. Size of body and yield of eggs are also influenced by the method of feeding.

There are certain periods in the life of fowls when a proportion of animal foods is of inestimable service, and its influence is quite as apparent, and probably much more direct, than it is in the way of feeding for colour, size, or egg yield. It is inadvisable at any stage in the life of breeding fowls, either male or female, that they should be too fat, but perhaps the time when this is most undesirable is just prior to, and during, the breeding season. While the food must be of a highly strengthening nature, everything in the way of fat formers should be studiously avoided.

There is no doubt whatever that animal food of the right kind, and in the right proportion, does much to promote egg-production at the time that eggs are needed for hatching purposes. In addition, it goes far

to secure a large percentage of fertility and strong germs. When a hen is in full lay there is a considerable drain on the system, so that the food has a two-fold function to perform. In the first place, material for the making of the egg is to be supplied; in the second, the elements necessary for the repair of waste in the body. It is found that animal food will supply the constituents for each.

It is an excellent plan to allow the prospective breeders full liberty, and to feed them sparely on good, sound oats, as the chief grain, until within a few weeks of the time when the eggs are required for hatching purposes. Then a different method of management should be adopted. Instead of free range, which they have enjoyed up to this time, the stock birds should be kept within limited space, and fed more liberally than hitherto, with the daily addition of a little animal matter, well cooked and mixed in the soft food.

There are many authorities who condemn the use of animal food in every shape and form, and many are the diseases which they claim owe their origin to this method of feeding. First, it is claimed that raw meat will cause diarrhœa. Doubtless it has a tendency in this direction, but we advocate that it should be cooked, and it is usually given in this manner. It is also said that it is a cause of liver disease, since meat is of a stimulating nature. We cannot, however, accept this statement without uttering a protest. Is it stimulating? We contend that it is not so, since it gives strength of long duration, whereas a stimulant, as its name indicates, is of a fleeting nature, and its influence is only felt for the time being. Animal food is more like that which the birds would obtain in their wild state, and similar to what their instinct teaches them to secure from the earth when they are at liberty. Feather-eating and comb and skin diseases are also among the complaints stated to be caused by giving animal food. There is no doubt, whatsoever, that if animal food be given in excess, it then becomes a grave menace to the health of the fowls. But what food is not injurious if fed to excess? The result of too much animal food is to cause the body to get into a heated condition, which is the forerunner of much This may, however, be counteracted to a large extent if plenty of vegetables be given. In this manner one helps to balance the other.

In determining whether or not a certain food is good or bad, a full list of the dietary should be studied. For instance, if such foods as hempseed, linseed, or rape be given, then the quantity of meat supplied should be infinitesimal, if given at all. These grains, however, are not used as regular foods; at the same time they are occasionally employed. It may be thought from this that these seeds may be used instead of meat. This is, however, not so, but they are foods that do not form a good ratio when given together.

The exact amount of meat to give per bird can only be definitely stated when the conditions are known as to the amount of liberty the birds enjoy, and whether they have access to land where insect and grub life may be obtained. The season must also be considered, since during an open season, such as we have had up to the present time, natural food is more abundant—at least, more readily secured than when the ground is covered with snow or in the grip of a hard frost.

A DANISH BREEDING CENTRE FOR FAVEROLLES.

By W. A. KOCK.

A FEW miles from Copenhagen, the poultry societies have established a new breeding centre for Salmon Faverolles, as this breed seems to do well in our country. Every hen is trap-nested, and many of them have attained a good laying record, especially in winter and spring.

The photo shows a flock of young pullets, behind one of the houses. The latter are divided in two compartments, one sleeping-room and one scratchingshed. The hens can go direct from the first to the last without going into the open. In the scratching shed are large windows on the south side, and the trap-nests are placed in this shed, where in the cold weather is laid a good layer of litter. Many bushes and trees, especially fruit trees, are planted all over the large runs for shelter.

THE POULTRY INDUSTRY IN THE NORTH OF SCOTLAND.

T HAT was a happy circumstance of the Agricultural College and the Congested Districts Board when they arranged to co-operate in their work over the districts in the Highlands and islands which these two bodies operate. And a happier circumstance still for the Agricultural College that they were fortunate in securing Craibstone—the estate extends to 7,000 acres-which is only five miles from Aberdeen, for the scene of their operations. The Congested Districts Board, which is under the authority of the Secretary for Scotland, is responsible for the establishment of poultry stations throughout the congested districts, and for providing the crofters with sittings of eggs of suitable breeds for the improvement of their stock. The Agricultural College, which is under the Scotch Education Department, is responsible for giving instruction and advice in poultry-keeping. The result



ON A DANISH BREEDING CENTRE.

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Where a Poultryman Has the Advantage.

At a demonstration of corn judging last winter the demonstrator said, in the course of his remarks: "You should look out for discoloured and broken kernels. It is allowable to cut one tenth of a point for every kernel that is found missing. A judge is right in supposing that these kernels were off colour and were taken out. For the same reason a poultryman would pluck black feathers from a white hen." Yes, verily, but the poultryman has this advantage: except in a few sections the plucked feather never would be missed. The absence of a kernel of corn is conspicuous. Of course no exhibitor of corn would replace an off-coloured kernel by one of the desired colour.—Farm Poultry, U.S.A.

of the conjoint arrangement, which took place about a year ago, speaks well for Mr. Esslemont's tact as an organiser. The advantages to be gained by the conjoint arrangement are the saving of two sets of officials working in the same districts, and preventing of overlapping and confusion by the giving of instructions—which sometimes were contradictory—to the crofters in the management of poultry.

The Agricultural College lady lecturers or instructresses, of whom there are a dozen at the present time, are appointed to districts, over which they make a regular course of visitations at the poultry stations instituted by the Congested Districts Board. They instruct the crofters on the practical management and rearing of poultry on up-to-date methods, then as

occasion offers a lecture or a resume of the work achieved is delivered to the district, and a report sent to the Congested Districts Board by the Agricultural College on the state of the efficiency of the work carried out, with advice as to the next line of procedure. During the past season about 3,000 sittings of eggs were supplied by the Congested Districts Board to the crofters at the nominal fee of sixpence per sitting. For the coming season, through the capable direction of Mr. Wilkie, convenor of the Poultry Committee, matters are already in an advanced stage.

During the past fortnight two members from the conjoint staff—a lady from the Agricultural College and a gentleman from the Congested Districts Board have been visiting poultry farms all over Scotland for the purpose of selecting consignments for the renewal of stock. These consignments are drafted in the first place to Craibstone, where the birds enjoy the pleasure of green runs and comfortable housing till complete arrangements have been made for their transference to the various poultry stations. There was some stir, and no little excitement at Craibstone, for preparations were in full swing for the departure of some two hundred head of poultry to Lerwick. The hammer and the saw were busily utilised in making the crates, while at different pens the birds were being ringed to distinguish them for the different poultry stations. A worthy stock of birds have been selected of an interesting variety of breeds-the Leghorn, of the white, black and brown variety; Wyandottes, white; Plymouth Rock, barred; Minorca, black-all young, healthy birds of good stamina. I noticed a very splendid consignment from the Alness poultry station, which was inaugurated on August 19th.

Investigations have been begun by the staff in several directions with a view to the greater knowledge of the possibilities of the poultry industry in the congested districts. An an instance of this work the staff in Orkney conducted an inquiry with respect to the export of eggs from that county. The inquiry showed that, estimating the price of eggs at the low average of ninepence per dozen, the total annual value of eggs exported was £70,000, which is more than the total annual rental of the county exclusive of the burgh of Kirkwall. With the poultry matters now in such forward condition for the coming season and under the capable and practical direction of Mr. Esslemont and Mr. Wilkie, the fruits of the work of the conjoint scheme of the Agricultural College and the Congested Districts Board will have a very material effect upon the subsidiary agricultural industries known as eggs, poultry, and feathers.—The Aberdeen Journal.

Journalist Judges.

At the Denver Meeting of the American Poultry Association a series of new regulations for shows were submitted, one of which reads thus:

Any person employed by poultry journals or other periodicals in which poultry advertising appears, or who are connected therewith as editors, associate editors, advertising solicitors, or who are part owners of such publications, are not to be permitted to judge at shows held under A.P.A. rules and regulations.

Whether this will be accepted next year remains to be seen. Some well-known American judges would be excluded if enforced.

MORE ITEMS FROM OUR COMMON-PLACE BOOK.

A Four-Legged Incubator.

A certain innkeeper, whose name and address are given, possessed some hens which were in the habit of laying eggs in a box which was subsequently utilised as a kennel for his dog. The latter did not object to the old occupants of the abode still utilising it for business purposes, whilst the hens on their part displayed no sort of diffidence as regards laying in the presence of the tyke. The innkeeper, as the third contracting party, heartily approved of the arrangement, as it saved him going to the expense of providing a new nesting-place for the birds, and so all went on merrily, the eggs being collected daily as before. A sudden change, however, is stated to have come over the scene one fine morning, as the dog was noticed to vacate his sleeping quarters in a hurry at a very early hour whilst the hens were visibly exercised in their minds. Investigation followed, as a natural sequence, when it was found that a chicken had been hatched from an egg which must have been overlooked and left in a corner, the heat of the dog's body supplying the natural warmth-according, that is to say, to the theory of the innkeeper, who has doubtless added to the attractions of his establishment by the excitement the affair has caused in the neighbourhood. At the time of writing, report says that it has not yet been decided whether the dog is the mother of the chicken or not.—Petit Parisien.

Prices of Eggs in Bygone Days.

The price of eggs did not range very high in the year 1314, as the value of money is considered to-day, yet we learn "in an ordinance of Edward the Second, it is set forth that there is 'an intolerable dearth in these days, of oxen, cows, sheep, hogs, geese, capons, hens, chickens, pigeons, and eggs'; and, therefore, amongst other regulations, it is prescribed that twenty eggs shall be sold for a penny, and that the eggs shall be forfeited if the salesman would not take that price. Some years before (1274) the Lord Mayor of London, in a similar proclamation, shows us how the commerce of food was conducted, by ordaining that no huckster of fowl should go out of the city to meet the country people coming in with their commodities, but buy in the city, after three o'clock, when the great men and citizens had supplied themselves at the first hand."

Edward the Second's regulations, as might have been anticipated, had the opposite effect to that intended, which he had the candour to acknowledge in the following year, 1315, by issuing another proclamation, in which he says: "We have understood that such a proclamation which at the time we believed would be for the profit of the people of the realm, redounds to their greater damage than profit."

Two and a-half centuries later prices had in the meantime greatly increased, for, according to Stow, "Through the grievous covetousness of poulterers, the prices of poultry ware are to be excessive and unreasonable," and therefore the Lord Mayor decrees the prices of geese and chickens, and commands that eggs shall be five a penny. In 1597 we learn that

even an Attorney-General could not have the benefit of such enforced cheapness, for the household book of Sir Edward Coke records that his steward expended in one week in May for his master's residence in Holborn the sum of 4s. 8d. for eggs, for which he had to pay at the rate of ten for a groat, while for his country house at Godwicke, in Norfolk, two months later, eggs were purchased daily at twenty for a groat. Thus we find eggs to cost in Holborn exactly double that price paid in the country.—Household Words.

HINTS ON DUCK-RAISING.

1. Don't overfeed your stock ducks, and on no account hurry them or drive them too fast.

2. Don't neglect to supply them with an abundance of material for shelling their eggs.

3. Don't overcrowd your ducklings.

4. Don't let them out when it is raining.5. Don't feed them until they are hungry.

6. Don't leave any food for them to look at.

7. Don't coddle, pamper, or keep them in houses artificially heated.

8. Don't deprive them of grit and green food.

9. Don't keep them out of their natural element, "water"; and lastly,

10. Don't keep those destined for market a day longer than they should be kept, but let them go as soon as ever they are fit.—The late Henry Digby in The Stock-Keeper.

STALE EGGS.

At a recent meeting of the Council of Hygiene, in the department of the Seine, France, a question was raised as to the fitness for food of eggs which had been laid for a considerable length of time, and which offered certain peculiarities, such as external and internal spots, with the yolks having a strange colour, and adhering to the shell. Various considerations on the subject had been submitted to M. Chatin, with the request that he would inform the Council whether, in the case of eggs so affected, it would be necessary to prohibit their sale. The reporter stated that eggs which had spots about them were not necessarily damaged, and that they might be used by bakers and confectioners for glazing bread and some kinds of pastry, whilst the whites could be used by leather dressers, who employ albumen in the preparation of articles made of leather. He added that eggs which were really damaged could easily be distinguished on account of the smell. Under these considerations M. Chatin thought there was no necessity to forbid the sale of them. That a stale egg may, in some cases, be safely eaten, like high game, is quite comprehensible; for game, as well as eggs, cannot be eaten when putrid beyond a certain extent, probably because germs of extreme septic virulence, resisting the gastric juice, have been developed. In the earlier stages of decomposition both these articles of diet appear to remain innocuous, the game being toothsome to the many, the eggs to the few.-British Medical Journal.

PLUCKING LIVE GEESE.

For some time past the police authorities in several countries have been active in prosecuting farmers and others for plucking geese alive, and, in most cases, the magistrates have imposed fines, when cases of plucking have been proven; consequently, an appeal against the decision of the magistrates, made by Michael Forde, of Ballysimon, co. Limerick, who had been fined 21s. and costs for plucking live geese. was looked forward to with much interest by goose raisers. The case was heard by Judge Adams at the Limerick Quarter Sessions on Saturday last. Evidence was given that the plucking of geese at certain seasons had the effect of fattening and improving their condition, and conducing to a better state of health, and that the practice was one of long stand. ing. Judge Adams remarked that many hurtful things were done to animals in the ordinary course of farming operations, which were not considered cruelty. In giving his decision, he also said it had been held that man had a dominion over the lower animals, and could inflict a certain amount of suffering for a legitimate purpose, and when the object was to improve the animals, thereby rendering them more profitable to himself. He decided that the plucking of live geese was done for a legitimate purposenamely, for their improvement, and to make them more profitable. Consequently, he reversed the convictions.

It certainly is a fact that plucking geese at certain seasons tends to improve them, for, when the loose feathers, which are just ready to drop out are re-. moved by hand, the moulting period is quickly got over, new plumage is assumed in a very short time, and the birds are ready to go on with the work of flesh and fat making far sooner than if they were allowed to go through the period of moulting in the slow, but natural, condition. We have noticed that young geese especially improve very rapidly in weight and condition shortly after they have been plucked, and easily outgrow their comrades of the same age and flock which are left unplucked, as a few of them usually are for immediate killing. Therefore, we think that plucking geese is a practice beneficial both to the birds and to the pockets of their owners, but there is yet a great deal to be said against plucking live geese, as it usually is done. The system is a humane one when the feathers are taken off just at the right time; that is, when they begin to drop out of their own accord and if the birds are carefully handled and not stripped too bare; but plucking is decidedly cruel when geese are handled roughly, and dragged by a wing or a leg from house to house, when the wings or legs are crossed over the back, which is quite a common practice; or when the birds are stripped so bare that there is little covering to keep out the cold, and no support for the folded wings to rest on. Then the wings hang and drag along the ground. Therefore, it depends on the plucker whether it is cruelty to pluck geese or not.— Irish Homestead.

Bogus Eggs.

A recent discovery was made at Duluth (Minnesota) by "a State Food and Dairy Commissioner," of a consignment of bogus eggs. The discovery came about in this way. It happened that one buyer was not favourably impressed with the style of the article served on his table as compared with the genuine product of the hen, and turned them over to the commis-

sioner for chemical examination. There was nothing in the outward appearance to arouse suspicion. Like the heathen Chinee, they were, in appearance, all that they should be, posing as genuine eggs, which so far as weight, size, and colour were all that could be desired. When the shell was broken they appeared to be the genuine article. Even the film of the sheil was not forgotten. According to this chemist, the different ingredients of the eggs were made in different moulds, beginning where the hen always begins, with the yellow first. This, however, instead of being the condensed sweetness of oats, corn, &c., was made of gelatine and sulphur, and coloured with turmeric. It lacked its fats, and, of course, lacked the vital spark which might develop, either into a lively chicken or into brain food, that would give birth to a thought that would stir the world. The shell was without crease or wrinkle, or anything to cause the least suspicion, unless it might be in the perfection of form, which the hen, however wise and skilful, does not always succeed in securing. The eggs are said to have emanated from Chicago, and so remunerative had the enterprise become that bogus eggs were shipped to the place where discovered in large quantities, travelling, as all bogus things do, not on their own merits, but in company with and mixed with the genuine product of the hen.—American Paper.

GENERAL LEE'S HEN.

"Among a lot of fowls sent to the Confederate camps in the great American war was a hen which at once captured the heart of General Lee. She was the only one spared from the entire flock, the steward of General Lee having discovered that she daily laid an egg. She proved to be a very discriminating hen, for she selected the general's tent to make her daily deposit. Instinct seemed to teach her that he was fond of fowls and domestic animals. Every day she would walk to and fro in front of his tent, and when all was quiet walk in, find a place under his bed and deposit her egg, then walk out with a gratified cackle. Appreciating her partiality for him, General Lee would leave his tent door open for her to come in. This she kept up daily for weeks, the servant always securing her contributions for the general's basket. She chose a roosting-place in the baggage waggon, and on breaking up camp to meet Hooker at Chancellorsville, room was found in the waggon for the hen. During the battle she seemed too much disturbed to lay, but as soon as the engagement was over she fell at once into her regular routine. She accompanied the army as far as Gettysburg. One night, when preparing for retreat, with the waggon loaded and everything ready, the question was raised: 'Where is the hen?' By that time everybody knew her and took an interest in her. Search was made in every direction, even General Lee joining in it. She was found perched on the waggon, where she had taken her place of her own accord. She accompanied the army in all its marches and counter-marches for more than a year, and finally came to a rather unsentimental end. In the winter of 1864 General Lee's headquarters were near Orange Court House. The hen had become rather fat and lazy, and on one occasion, when the general had a

distinguished visitor to dine with him, the servant, finding it extremely difficult to procure material for a dinner, very inhumanly killed the hen, unknown to any of the staff. At the dinner the general was very much surprised to see so fine a fowl; all enjoyed it, not dreaming of the great sacrifice made upon the altar of hospitality. When she was missed, and inquiry made, the servant had to acknowledge that he had killed her in order to provide something for the gentlemen's dinner.—Memoirs of General Robert E. Lee.

Drunken Ducks.

The advocates of "temperance," as they oddly call it, often contrast the convivial habits of man with the asceticism of the lower animals. But don't animals get drunk? The following case of intemperance in birds occurred under my own eyes, and under the bridge over the Lochy, below the Ben Nevis Long John Distillery. That establishment disgorges into a burn a quantity of refuse, no doubt alcoholic. When we crossed the bridge in the morning to fish, the ducks from the farm opposite were behaving in a drunk and disorderly manner — flying, beating the water, diving, spluttering, and greedily devouring the stuff from the distillery. Their antics were funny, but vulgar. By two o'clock we found the ducks sleeping off the effects of their debauch. We wakened them, and they all staggered eagerly to a bucket of water, from which they quenched the torments of thirst. A small seabird behaved in a still more deplorable way. He slowly drifted down the Lochy from the fatal intoxicated burn, nor could pebbles judiciously thrown at him induce him to take the wing. He tried to dive, making efforts comic and unsuccessful. After drifting through the bridge, I regret to say, he returned to the burn and "took a. cup of kindness yet," getting all the more intoxicated, and drifting back in a yet more deplorable condition. What a lesson, we said, is this to mankind, who afterall need not speak of their boasted reasonableness! The wild and tame things of stream and ocean are as unwise as we."-MR. ANDREW LANG, in Longman's Magazine.



DIGGING FOR WORMS.

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COLD SUPPER DISHES.

DURING the present season there arises in the majority of households, whether large or small, the question of entertaining, for, as a rule, every housewife likes to take a share in the usual round of festivities. To my mind, there is no form of hospitality more thoroughly enjoyed than a carefully-arranged, wellprovided supper-party, and if the dishes are all served cold, as I strongly advise they should be, there is no need for those at the head of affairs to have any worry or anxiety as to whether or no the various items provided will turn out satisfactorily. Cold dishes, too, can be garnished so much more tastefully than hot ones, which is a point of no small importance, as we all know from experience that if a meal is to be a perfect success the eye must be pleased as well as the appetite. I hope, therefore, that the following suggestions for dainty and attractive garnishings may prove helpful.

Boiled Turkey.

Choose a small turkey, well hung and very plump, and when it has been carefully boiled, allow it to get nearly cold, then cover it entirely with a thick coating of well-made bechamel sauce, to which has been added two or three sheets of fine French gelatine; smooth this nicely with a broad-bladed knife dipped frequently in cold water, then ornament the bird tastefully with pickled beetroot cut in Julienne shreds or stamped out in small fanciful shapes with tiny cutters, pickled walnuts cut in slices or quarters, spread leaves of fresh parsley, white of hard-boiled eggs cut in thin strips, and little patches of the sifted egg-yolks. If a little skill and good taste are displayed in the arrangement of the various items the effect is decidedly pleasing and well repays any trouble which the work involves.

Another Method.

If preferred, after the turkey has been boiled, it may be cut up into small, neat joints and slices before being sent to table. When this plan is adopted, each piece must be nicely and thickly coated with the sauce and arranged in a single layer on a dish; then, when nearly cold, they must be prettily decorated according to taste. When required, dish up neatly, and so as to show off the decoration, garnish round about with a full, close border of carefully-washed, pleasantly-seasoned watercress or fresh parsley, and upon this place a tasteful arrangement of the items already mentioned. This plan has one very great advantage—namely, it saves all the time and trouble of carving at table, which, as every host knows, is no easy task when there are many guests to serve.

COLD HAM.

This, too, may be cut in slices previous to being sent to table, and forms a very dainty-looking dish if the slices are arranged neatly, and are garnished freely with sprigs of fresh parsley; but if it is decided to serve the ham whole it may be garnished and decorated as follows: While still hot, remove the rind and sprinkle the surface with fine brown raspings, then, when quite cold, sprinkle again with a mixture of raspings, finely chopped parsley, and sifted egg-yolk. Fix a frill round the knuckle of the ham, and, after placing it on its dish, garnish round about with a green border as already directed, and decorate this with hard-boiled

eggs cut in slices or quarters, small fancy shapes of boiled beetroot, and fancifully-cut slices of fresh lemon.

GEESE AND DUCKS.

If these are to be served whole, they should have two, or even three, coats of glaze, in order to give them a nice, smooth, bright appearance; but, of course, care must be taken to let one coat dry before adding the next, or the result will prove anything but satisfactory. But if the birds are to be cut up before being sent to table, then each joint and slice must be separately glazed, as already directed. When quite firm, dish up the pieces in a neat pile, with a small sprig of fresh parsley between each, and garnish round about as follows: Cut some cold cooked potatoes and some boiled beetroot in slices, and sprinkle the former with very finely minced parsley, and the latter with sifted egg-yolk. Then arrange them alternately round about, each slice just slightly overlapping its neighbour.

A RAISED GAME PIE.

Prepare a moderately rich crust in the usual way, only make it very stiff, then use it to line a proper pie mould, the thickness of the crust being regulated according to taste. Care must be taken, however, not to make it too thin, or when cooked it will be very liable to break. Cover the bottom of the pie with slices of fat bacon cut very thin, then spread over these a layer of well-seasoned forcemeat. Next add some of the joints of the birds, which should be cut small, and cover these with a layer of chopped mushrooms and a few small pats of fresh butter. Repeat in this manner until the pie is full, then add more bacon, and put on a lid of the pastry. Finish off in the usual way, and bake in a moderate oven from two to four hours, according to the size of the pie. When quite cold, take off the top crust very carefully and remove the bacon, then cover the top of the pie with a pile of roughly chopped aspic jelly, either of one colour or variegated. according to taste. Set the pie on a neatly-folded napkin, garnish it freely with fresh parsley, and serve. Pheasants, partridges, grouse, woodcocks, snipe, &c., &c., are all suitable for the making of this most delicious pie, and the birds never retain their full and highly-appreciated flavour more effectually than when cooked in very simple fashion.

New Laid Eggs.

Even in Canada complaints are met with as to the difficulty of obtaining first-quality eggs, for which there is an ever-increasing demand. Mr. A. G. Gilbert tells in the *Canadian Poultry Review* of experiences in Ottawa which might be duplicated the world over.

Eggs in the Reichstag.

In a discussion upon economic questions recently in the German Reichstag, one of the speakers declared that "eggs are a luxury." We can well understand that statement, considering recent advances in prices as a result of growing consumption.

A "Theatrical Star's" Poultry Plant.

Mrs. Jane Murray, formerly star in "The Merry Widow" Theatre Company, now runs a poultry farm on a good scale at Newark, Delaware, where she has found in looking after hens restoration to health after a serious breakdown some time ago.

POULTRY-KEEPING ABROAD.

FOR years and years—for centuries one may say the British people have been set upon pinnacle as regards stock-breeding—as regards the production of horses, cows, sheep, and stock generally; and from their pinnacle they have watched with pride and some contempt the efforts of their neighbours—not with jealousy, because those efforts have never until lately been considered very serious or at all competitive. A time has come now—and it might well have come very much earlier—when the exclusive position of the English stock industry is being assailed, and if it is to maintain the status of the greatest stock market in the world, then English breeders will have to awake and be very much alive to the exigencies of the situation. And this must be recognised: that the world-quite apart from Great Britain-is a far cleverer place than it was fifty years ago, and that where there is commerce there must also be com-

These matters, it is true, do not concern us as poultry-keepers very acutely, but to some extent we are affected thereby. The field of exhibition breeding, for instance, is far from being wholly ours. We have the Americans to fear—a people whose existence has been progressive from beginning to end, and under whose feet the grass has never been allowed to grow. I do not intend to think or admit that the people of the United States are our equals as breeders of poultry, but I do believe that, whereas the mainspring of our own fancy is competition, the mainspring of the American fancy is progression, which two are very different things. Were competition taken from the one the whole fabric would collapse like a pack of cards, all initiative and effort would be gone out of it, and there would be neither fancy nor fanciers. The other, however, even if competition were gone, could, I believe, exist solely on its own foundation of progression, but—there is just the difference between the British and the Yankee temperament.

As matters stand at present, however, we can truthfully claim to be at the head of affairs as regards exhibition poultry. American methods of breeding are often clever, but according to our ideas they are unsound-they smack too much of the theoretical rather than the strictly practical. One imagines a crack American bird to be the result of an experiment rather than a system, which doubtless is sometimes the case. As in everything else to which the United States turns its hands, poultry-keeping is of the nature of a mania, and it is the object of the maniacs, as a rule, by no means to achieve merely satisfactory results, but rather to dazzle the eyes of the public by figures or big things, or new things, or old things served up as new, or anything, in fact, that will produce a sensation. On that account one is sometimes reluctantly constrained to place very slight faith in what is told us or in what we are asked to believe concerning certain systems of feeding, certain systems of housing, or certain experimental results said to have been obtained in the land where everything is wonderful, new, and-if Americans are to be relied upon-better in quality and quantity than anything to be found elsewhere.

Matters of this kind notwithstanding, we are compelled to admire the States as a poultry-keeping country, and beyond doubt it is a fairly close second to ourselves. That being so, it is interesting to turn to the colonies-Canada, Australia, and South Africa -and note the steady progress being made by them and their enthusiasm in matters of poultry-keeping. Of the three named I should say Australia is the most progressive. Its Government and Press are in the one case far-seeing and in the other generous, which qualities make operations on a large scale far simpler than they will ever be in this country. We have an object lesson—no more than an object lesson—of how a laying competition can and should be run, and after such a lesson one does not wonder that some " utility gentleman" should yearn to do likewise—to run a laying competition on a gigantic scale, to produce eggs on a proportionate scale, to break records on a similar scale, to keeps hens on an unheard-of scale, and generally to astonish the English poultry world very much indeed. It is not surprising and it is highly laudable this, but unfortunately, as has time and again been pointed out, outside of Australia, or, at any rate, in the British Isles, it is impossible. I personally fear this is pursuing an ideal that never will be real, for where are the State grants, where the newspaper enterprise? That is the pointwhere? Of the former kind there is one on record, and it, one must allow, was meagre enough.

However, laying competitions are not now the point. The point I wish to make clear is the excellent progress that is being made in a country where State aid is being practically applied. There can be no doubt of the progress. It is perfectly manifest in almost all branches of poultry-keeping work, one of the most important being the cold storage branch. Here everything is satisfactorily carried out, and Australian cold-stored poultry is some of the best of its kind obtainable. Yet it is a Government business. In England we should consider this a very doubtful advantage, but in Australia things are different.

Of Canada similarly, though in a lesser degree, the same thing may be said. The Canadian farmer is educated by his Government up to the advantages and opportunities of all departments of his work, and, to judge from results, one would imagine that he profits from his more or less gratuitous education, that he has at least an open mind on all points, and that he is fully alive to every possibility of his profession. Such, doubtless, is the case, and if the English farmer ever becomes willing to learn anything from anybody, then, say I, let him take the Canadian farmer for his model.

So far as I am aware, State aid is not applied very zealously or extensively in South Africa, but none the less this land of turbulent colonists holds out poultry-keeping possibilities that are only just now being developed. That it will ever become a great poultry-farming country I do not believe, but owing to the large number of native Britishers settled within its limits it imports, and will probably continue to import, annually a large amount of fairly valuable pure-bred stock, which almost exclusively emanates from England. This is satisfactory—very materially so to some of us—but even more pleasant is it to know that the destinies of the poultry industry are

presided over by an association—not a figure-head of an association, but an association proper, which may also be known as an organisation, and which should always denote something tangible. South Africa also has at least two good shows, one of which is, I believe, managed by the Poultry Association. There are probably several besides these that are equally well conducted, but in any case South Africa is doing exceedingly well for a "little 'un."

Nearer home old methods and old ideas naturally hold foremost place in countries forming part of that section of the earth known as the "Old World." They have moved little, these ancient countries, in matters of agriculture and husbandry, and while new industries come and old ones go and things are changing and moving onwards in their midst, it is enough for them to sit quite still and look on. France is one of these; Austria, Italy, Germany, all are alike —in poultry matters at least they are almost entirely devoid of enterprise. It is often said that France can teach us much, but I think differently. certain point—that of egg-production and marketing —she is our superior, but beyond this one point what can she teach us? Maybe the idea is to make our poultry industry a cottager's or a small farmer's business, which is no doubt a very choice and a very pretty idea; but is it practical? I should say not.

One must discriminate. France, though a big country, is none the less a country of small people—small peasant farmers and holders, whose advantages in certain phases of petite culture are obviously considerable. The objects of their attention are exceedingly limited—a few cows, a few pigs, a few goats, and the chickens, that is the stock-in-trade of Jacques Bonhomme. Over here it is so different. Big farms of several hundred acres abound. There are cows in hundreds, sheep in thousands, pigs, and horses distributed among a few in a certain district; what chance to develop has petite culture? Luckily, there are also poultry farms, many of them, and there is a Fancy; these thrive, but there is no petite culture business—moreover, there is no room for it.

And this applies equally to Denmark. Denmark has a very nicely regulated egg industry, whose supplies we are right glad to have in default of our own. Here we must frankly acknowledge she is far ahead of us, and in this matter at least it must be allowed she has been distinctly enterprising.

Differences though there may be, however, in customs, ideas, and climate in the various quarters of the earth, there is still between all poultry-keepers a very real and common interest bred of a common profession or a common hobby. In all "Fancies" there is necessarily a certain camaraderie, a certain spontaneous friendship, which is natural enough. In the poultry fancy I think one finds something more real, more unselfish, and less egotistical than that; where poultry fanciers meet, the interest is not as a rule self-centred, but is, on the contrary, shared by and common to all. So it is that they like to know about each other and hear about each other's doings. There are poultry-keepers, I believe, in every part of the globe-in almost every land upon which the sun rises and sets. Very many of them are Englishmen born and bred, some are Colonials, others Americans, but all have this mutual interest, and all in this common pursuit find sympathy.

TABLE-POULTRY AT THE SMITHFIELD.

THE classification of the table-poultry section of the Smithfield Show certainly needs revision. It is no wonder that the number of entries is considerably smaller than it was last year, and unless a different classification is speedily adopted a further reduction is bound to ensue. For instance, there are special classes provided for Old English Games (which contained only three entries), for Black Orpingtons, for Langshans, and for Plymouth Rocks, while no class at all is provided for such a splendid table breed as the Sussex. There were, it is true, several representatives of this breed, but they had to be in the "Anv Other Variety" class. This is to be greatly regretted, and the sooner the classification is altered the better.

The quality of the exhibits at the recent show compared very favourably with those of previous years.



THE PREMIER TABLE BREED-THE DORKING. [Copyright.

Some of the classes were rather disappointing, but others, on the contrary, were exceptionally good. There was a considerable falling-off in the number of entries, while some of the classes were very small, notably among the Dorking, Old English Game, and the Old English Game crossed with the Dorking. We were pleased once more to observe that comparatively few of the specimens exhibited carried much gross fat, so objectionable a feature in many show birds. A few years ago the majority of the exhibits were over-fattened, a point always to be striven against in the preparation of table chickens.

Dorkings, on the whole, were rather disappointing, but a few couples stood out prominently so far as colour and quality were concerned. The winning cockerels were very large birds and of superb quality, and they were considerably ahead of the couple which secured second prize. The pullets were fewer in number, but were of rather better quality, the winning

couple being, perhaps, as near to perfection as it is possible to attain. The Old English Game were disappointing, there being but three entries, none of them of particularly good quality. It is surprising that those in charge of the classification should continue to include a special class for this variety. So far as our memory serves us, there have not been for several years past more than three entries in the Old English Game class, while we once remember only two. On the other hand, there is no separate class provided for Sussex or Faverolles. At the show there were several entries of Sussex in the any other variety class, but surely this old and popular breed should have a class to itself. Indian Games were well represented, there being eleven entries in the class provided for them. Competition was keen, for the birds were of a remarkably good quality through-

Langshans were not very good, neither were the Black Orpingtons. Buffs, however, were excellent. There were sixteen entries, many of them being re-



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THE BREED WHICH WAS SO NEGLECTED AT THE SMITHFIELD SHOW—THE SUSSEX.

presented by very fine specimens. Another variety which made a good display was the Plymouth Rock, and it was quite remarkable how white the flesh was of several of the exhibits. Especially does this apply to the first and fourth birds, the property of F. H. Wheeler, the flesh of whose birds was almost as white as that of the Dorkings. Wyandottes were fairly numerous, but the general quality was not particularly satisfactory. A very good class was that for any other pure breed than those already mentioned, although only two varieties were present. All the prizes were awarded to Sussex, the first three awards going to the speckled variety and the fourth to the red. The only other breed in the class was the White Orpington.

Cross-bred fowls were not quite so good as they

have been in some previous years. Some of the classes were poorly filled, while the general quality was somewhat inferior. The Old English Game and Dorking class contained only three entries, none of them very striking. The Indian Game-Dorking cockerel class was an excellent one, and contained the silver cup and champion birds. These belonged to W. H. Edwards, and certainly well deserved their position. They were large, long, and deep, and their quality and colour were excellent. Pullets were satisfactory, but were not up to the cockerels. The any other cross classes were exceptionally good. There were eleven couples of cockerels and eighteen of pullets. The Indian Game-Buff Orpington cross was greatly in evidence, there being seven of this mating among the cockerels and eleven among the pullets. First and fourth prizes were awarded to Indian Game-Buff Orpington, second to Indian Game-Red Sussex, and third to Dorking-Plymouth Rock. In pullets, first and third prizes went to Indian Game-Buff Orpington, and second and fourth to Red Sussex-Buff Orpington.

Two classes were provided for farmyard fowls, one for cockerels and one for pullets. They were well supported, and the competition was extremely keen. Some of the cockerels were enormous birds, but many of them were rather coarse, and did not bear much evidence of having been fattened particularly well. The pullets made a truly excellent display, colour, quality, general appearance, and texture leaving very little to be desired.

The Aylesbury duck class was excellent and contained some really superb specimens. Certainly this variety has no rival, so far as its edible properties are concerned. The class for any other pure breed consisted only of Pekins, and while there were a few good birds exhibited, the general quality was below that of the Aylesburys. There were a few cross-bred ducks, but they were rather disappointing. Geese were not very good, and we remember seeing much better displays in previous years. Turkeys, while not very strong numerically, were of excellent quality.

A Talking Hen.

An American paper says that Mr. W. H. McKay, of Stockton, California, has been quietly working for some time on a breed of hen which, he declares, will eventually talk like a parrot. He calls it the phonographen. Life will not be worth living when that appears. If hens could tell their owners what they think of them humility will be the lot of the poultry-keeper.

Poultry Fattening.

The United States Department of Agriculture has so far recognised the importance of fattening poultry by bringing out a bulletin (No. 140) on the subject.

Corrugated Iron for Poultry Houses.

Mr. D. F. Laurie, Poultry Expert to the South Australian Department of Agriculture, advocates the use of iron for building poultry-houses and cement floors. Each country must adopt methods suited to its own conditions.

FRENCH FATTENING.

CAPONS AND POULARDES.

Of late there have been doubts thrown upon the statement that caponising is practised to any extent in France, and we have made special inquiries as to this point. The result is that whilst it cannot be said that caponising is at all universal, there can be no question that it is widely adopted, and all the best specimens are so treated. During certain periods of the year women travel about the Bresse district from farm to farm, performing the operation at a given price per bird. An ordinary fowl will sell for six or seven francs (we are now speaking of the poultry districts, such as Louhans, Bourg, &c.), but a capon will realise ten, twelve, and up to twenty francs, according to its size and flesh. Even when a capon is not more than one-fourth greater in weight than a cockerel it will sell for more than twice the amount. A capon which we saw at the Bourg Show a few days before Christmas weighed nearly twelve pounds. These birds grow to a larger size than cockerels, but at the same time the flesh is regarded as much finer and more delicate. Poulardes are only so in name, as there has been no operation interfering with the ovaries. Care is taken to keep them from laying, and their flesh is the finest of all. A poularde will always command a higher price than a capon, even though the latter be greater in weight. That caponising is essential to produce the finest specimens of table poultry cannot be questioned, and to the same extent as in France its adoption should be advo-

METHODS OF FEEDING.

Very little change has been made in French methods of producing table poultry within the last thirty years, and practically no progress has been made. At one time we looked to our neighbours across the Channel for the best methods and for the finest specimens, but that is no longer the case. Although very fine birds are placed upon the great markets, we do not think that they are equal to what were common at one time. The reasons for this are not easily discerned, but there is a tendency in all races of poultry to lose their virility, and in some of the French breeds this is probably the case. So far as we are aware only one new breed has been introduced during recent years, the Faverolle, and that is not a first-class table fowl. The natural conservatism of the French peasantry, and their indisposition to change, has made them less disposed to the adoption of new methods.

FOOD EMPLOYED.

In some establishments where liquid food is used a mixing machine is employed for its proper preparation. In the Bresse country buckwheat and maize-meals are largely employed for fattening, whilst in Normandy barley-meal is regarded with great favour. At the Roullier-Arnoult establishment, near Houdan (Seine-et-Oise), the food for fattening consists of the barley-meal, thoroughly sifted, sometimes varied by fine Indian-meal, and mixed with skim milk, or the whey of curdled milk as a change. The mixture is made into a thick cream, and during the last three days of the process an ounce of diluted fat is added for every three birds, or a raw egg to every pint of the liquid used. The birds fed in this manner sell for two francs per pound.

STANDARD OF RED OR CORONA-TION ORPINGTONS.

COLOUR. (30 points.) Clear dark mahogany all through, not unlike a fresh chestnut. (Buff allowed in under-colour, but red preferred.) Little black in tail and wing allowed at present, but red should be bred for.

TYPE. (25 points.) Cobby, compact, erect, and graceful; in fact, comprising all the usual Orpington characteristics.

Head and Comb. (10 points.) Eye, red or brown (red preferred). Beak, white. Comb, face, and earlobes and wattles, red. Comb, small, neat, and firmly set on head, evenly serrated and straight. Wattles, medium.

FEET AND LEGS. (10 points.) Legs, short and straight, colour white, free from feathers, four toes on each foot, straight and well set apart. Toe-nails white.

Size. (10 points.) Cockerels, when fully grown, about 8—10lb. Pullets, when fully grown, about 6—8lb.

Points for Judging.

Colour			 	 30
Туре			 	 25
Head a			 	 10
Feet and	d legs	• • •	 	 10
29.8			 	 10
Conditio	on		 	 15
				100

Serious Defects. Any deformity, side spikes on comb, white in ear-lobes, feather on legs, black under-colour, and mossiness or tickiness on top-colour.

DISQUALIFICATIONS. Faking or trimming.

H. SELLINGS, Secretary (pro tem.), Red Orpington Club.

Brook House, Hellingly, Sussex. 'Phone 23 Hailsham.

NORTHERN UTILITY POULTRY SOCIETY.

LAYING COMPETITION, 1911-12.

Under the Management of Messrs. Burrell & Thornton, Whittlefield Farm, Burnley.

REPORT OF THE SECOND MONTH.

AM pleased to be able to report a substantial increase in the number of eggs laid during the month, many birds not laying during the first month helping to make up the total to 2,028. There are, however, 38 birds that have not contributed to the score: Nos. 2, 26, 27, 38, 41, 63, 64, 66, 67, 70, 71, 84, 110, 125, 128, 133, 135, 137, 138, 139, 140, 141, 142, 143, 144, 147, 150, 151, 152, 156, 157, 160, 167, 171, 182, 185, 187, and 188. The weather has been typical for this part of Lancashire: 19 days being wet, only 3 days could be called fine; the remainder being cold with east winds or foggy, which does not improve the appearance of the birds very much.

The birds on the whole are in good condition, there are some few that do not seem to respond as yet,

whilst others are in splendid condition, and are not only laying remarkably well, but are also gaining in weight.

Broodiness has been much more prevalent during the month, 14 birds being affected—Nos. 1, 10, 14, 21, 80, 89, 90, 104, 114, 117, 124, 129, 134, 136.

Two birds have suffered from lameness during the month, Nos. 50 and 70. They were isolated and treated promptly. The former has now been returned to its pen, whilst the latter is progressing favourably.

The following are moulting: 7, 16, 27, 67, 68, 87, 151. Nos. 180 and 192 have each laid one double-yolked egg; 39 birds have laid 20 eggs each or over during the month.

No. 189 holds the record with 26 eggs, only failing to lay on the 5th and 22nd days. Nos. 46 and 126 have laid 25; Nos. 107 and 191 have laid 24; Nos. 8, 28, 76, 116, 161, 177 have laid 23 eggs in the 28 days.

Pen No. 48 White Leghorns win Half-Cwt. Perfection Chicken Food given by Messrs. J. Cornall and Sons, Kirkham, for pen making highest score during second month.

C. Longbottom, Hon. Sec., 28, St. Matthew Street, Burnley.

RESULT OF FIRST AND SECOND MONTH. EGGS LAID.

			EGGS	LAID.		
3.7		, nann		·	Total	
No.	E	BREED.	1st	2nd	Points	REMARKS.
	****	***		Month		
$\frac{1}{2}$		Wyandottes	18	39	338	No. 1 Broody.
3	11	,,	34 40	59 77	559 608	No. 7 Moulting. No. 10 Broody.
4	,,	11	51	34	450	No. 14 Broody,
	,,	,,		-	100	No. 16 Moulting.
5	,,	,,	11	37	274	
6	,,	,,	81.	50	761	No. 21 Broody.
5 6 7 8 9	,,	,,	8 46	44 31	348 415	No. 29 Moulting
ğ	,,	,,	31	72	572	No. 29 Mounting.
10	,,	"	42	42	457	No. 38 Moulting.
11	,,	,,		32	205	•
12 13	,,	,,	37	58	512	
14	,,	"	80 40	55 70	793 643	
15	,,	***	83	76	867	
1.6	,,	"	7	24	176	
17	,,	,,	10	12	120	Nos. 67, 68
18			0.4	47	704	Moulting.
19	,,	"	24 48	43 60	324 559	
20	"	"	87	55	772	No. 80 Broody.
21	,,	,,	42	25	328	
22	,,	,,	59	15	380	No. 87 Moulting.
23	,,	,,	85	70	861	Nos. 89 and
24	,,		75	72	801	90 Broody.
25		"	10	69	510	
26	Buff O	rpingtons	64	24	458	No. 104 Broody.
27 28	,,	٠,	62	79	807	
29	,,	,,	73	13 45	104 544	No. 114 Broody.
29 30	"	,,	65	34	572	No. 114 Broody. No. 117 Broody.
31	,,	,,	41	19	283	No. 124 Broody.
32			. 26	44	442	
33 34	Light	Sussexed Sussex	31	41	388	No. 129 Broody
04	ppecki	eu bussex	. 17	33	292	Nos. 134, 136 Broody.
35	Rhode	Island Reds.				Broody.
36	Colum	bian				
37	Buff R	Wyandottes				
38			11 13	18 8	180	NT - 454 NC - 11*
39	,,	.,		42	125 431	No. 151 Moulting.
40	Valdar	nos		25	156	
41	White	Leghorns		42	421	
42 43	,,	,,	33	54	528	
44	",	,,	35 20	46 35	447	
45	,,	•• •• •• • • • • • • • • • • • • • • • •	64	75	303 773	
46	1,	*,	32	30	325	
47	,,	,,	19	11	187	Nos. 187, 188 Moulting.
48			45	87	740	188 Moulting.
	,,	,,			742	
	Tota	d Eggs Laid	1,781	2,028		

ANSWERS TO CORRE-SPONDENTS.

Indications of Sex.

I want to know how to tell the sex of chickens as early as possible, but do not know any reliable indications, and shall be glad if you will help me.

—P. S. (Richmond).

The age at which it is possible to distinguish the sex depends to some extent upon the breed, but also, and very considerably, upon the powers of observation and the length of experience of the breeder. In some breeds it is possible, for those who are familiar with the birds, to separate the sexes before the chickens are three weeks old; but the inexperienced would be in doubt long after certainty was possible to the old breeder. Generally speaking, the pullets feather rather more quickly than the cockerels, and especially so upon the body; but in the predominant sex the common indications are size of head and development of comb. Moreover, the sex of the male is early noticeable in the general bearing of the bird. There are, of course, numerous other signs that apply to breeds and groups, but are not of sufficiently general application—and no breed is mentioned by you. You must mainly depend upon your own experience.

Moisture in Incubators.

I was reading the other day that it was advisable to place some water trays in hot-air machines, as by so doing the percentage hatch was higher. Is this so, and if so, what form does the same water tray take?—I. T. (Guildford).

When moisture is necessary in an incubator the maker supplies water trays suitable to fit his particular form of incubator. Your machine, however, may be placed in a room where the atmosphere is very dry, and if you desire to correct this, and the incubator is not so constructed that a water tray can be used, a saucer half full of warm water, in which a sponge is placed, put into the egg-drawer will cause evaporation of the moisture.

Hatchable Eggs.

How should I select eggs for setting; or would it be correct to set all I get?—W. H. (near Barnsley).

In the first place you should know your breeding stock and their suitability for the purpose, and you should have mated the birds for a sufficient time to ensure fertility, and have fed them correctly. But perhaps you know all that, and simply refer to the selection of the eggs as regards shape and size; in which case it very seldom happens that "all you get" will be hatchable—apart from the first-mentioned considerations. The proportion of hatchable eggs, as indicated by shape and size, varies with seasons. Some years the selection results in a much larger number being rejected than in others; but whether the proportion be large or small you must avoid setting misshapen, rough-shelled, or very large or small eggs.

Those selected should be smooth in shell, even in shape, and of a medium size.

Size of House.

Relative to a recent article in the Illustrated Poultry Record, which I read with much interest, will you please state in your next issue how large a house should be for 25 birds?—A. M. (Bishop's Stortford).

The space necessary for a given number of fowls in a roosting-house is variously estimated according to the construction and ventilation of the building-and the opinions of different authorities. Thus it is sometimes stated that there must be an allowance of nine inches of perch room per bird, or three square feet of area for each, and so on. Such estimates are useful enough as far as they go, but they do not go far enough unless they also take into account the requirements of the fowls in relation to the cubic air space. Owing to the divergence of opinion as to the proper method of calculating the number of birds a poultry-house should properly accommodate, a series of experiments was conducted in 1904 at the South-Eastern Agricultural College, Wye. In the result it was shown that in wooden poultry-houses with ventilation at the top each bird must have ten or more cubic feet allotted to it. The maximum number is found by dividing the volume expressed as cubic feet by ten, and—in the words of the report—" we prefer to keep within this number." It must, however, be remembered that in open-fronted houses the conditions differ in proportion to the space that is permanently open, but that if by means of shutters or sliding glass windows the house may be almost entirely closed, it would not be safe to depart from the rule based upon the cubic air space.

Poultry-Farming in England.

- 1. What part of the South of England is most suitable?
- 2. Is the Isle of Wight a good spot? If so, does freight kill the profit?
- 3. Would a spot ten miles from London be better than, say, thirty miles, allowing that climate near London is not of the best?
- 4. What capital would be required to *start* a farm such as I sketch? Say 100 good pullets with 10 cockerels for breeding purposes, and 200 pullets with cockerels for table-eggs, and breeding table-birds; incubators, brooder, sleeping-houses, wire netting, tools, &c.

5. What is roughly cost of food per month for 100 birds, purchasing in large quantities, and ob-

taining lowest cash rates?

6. Given average luck, average management of a beginner who knows a good deal of the work, combined with excellent knowledge of business principles, would such a farm pay expenses of food, &c. (not increase of stock, houses, &c.), in first year; for purposes of argument, taking income from table-birds and eggs only?

7. Allowing that a 200-egg incubator is used (with skill), what profit from the farm (if any)

may be expected the second year?

8. Cannot an incubator be used profitably all the year round? Would there not be a steady demand at all times for at least table-birds?

9. I may mention that the farm would be worked without paid labour, or with at most a lad at 3s. or 4s. per week. I do not know if you have published an article based on similar questions to mine, as I have only just subscribed to your magazine, but should say that such article, giving very full details, figures, and plans of starting a farm on a small scale, would be of great interest.—H. F. F. (Ceylon).

1. Almost any part for egg-production and sale of stock. 2. Yes; there is a large local demand, as the Isle if Wight does not meet its own requirements. 3. As a rule almost any district within thirty miles of London, if you can find a suitable place. That, however, is the main difficulty . 4. Would vary in accordance with your scheme. Probably £400 to £500. 5. About fivepence per month each. 6. Depends upon management and ability. Others have succeeded. 7. Impossible to say. 8. Yes. 9. See article on Poultry-Keeping as a Business in issue of May, 1909.

Brief Replies.

B. B. (Southwold): See this issue.

M. S. G. (Gravesend): 2s. 6d. to 3s.

A. C. G. (Aberdeen): 3s. 6d. per dozen.

- B. S. (Hadleigh): Faverolles—Buff Orpington. P. L. (Worthing): We do not know the answer.
- C. W. (Enfield): American price equal to 4s. 2d.
- B. B. L. (Bromley): See our advertising columns.
- J. R. (Wokingham): See reply to "Q.M." below.
- A. McG. (Forres): You can buy a good one for 2s. 6d. L. O. M. (Oundle): No; you will be too late for this
- M. S. H. (Newbury): Yes; 160 per hen is a good
- M. B. (Gateshead): Write to the secretary of the club you mention.
- J. C. (Hastings): Vancouver Island is, as you suggest, most suitable.
- W. F. (Burnley): Write to Secretary of the Burnley Fanciers' Society.
- M. E. R. (Ipswich): Write to the G.W. Ry., Paddington Station, London.
- O. M. (Pembroke): With room temperature of 60deg. F., work at 103deg. F. for first two days, then 104deg. F.

The Running Cost of a Motor Car.

Many people who would quite willingly pay a good price for a good car for use in the country are afraid to do so, as they have heard of the heavy expenses of running. The cost of running a car is more vital than first cost, and the remarkably low expense of running Talbots is a feature which every Talbot owner appreciates. As an instance of the low consumption of Talbot cars, the recent performance in the Transvaal Park trophy may be mentioned, when the Talbot won with a record of 166 miles on $3\frac{1}{8}$ gallons of petrol. total weight of the car was 3,662lb. On the heavy South African roads consumption is naturally at its highest point, and on the better roads in this country owners find even more favourable results. A further instance of this was in the petrol consumption test conducted last May by the Hants Automobile Club, when the "Invincible" Talbot was first in its class.

OUR BOOK MARKET.

Any of the following books will be supplied at the prices named. Cash must always accompany orders.

Amateur Poultry-Keeper. By W. M. ELKINGTON. 120 pages. Fifteen illustrations. Price, 1/2 post free.

Incubators and their Management. By J. H. SUTCLIFFE. Fifth Edition. Illustrated. Price, postfree, 1/2.

Lett's Poultry-Keeper's Account Book. Edited by Lewis Wright. Cr. 8vo. Post free in the United Kingdom, the Colonies, and foreign countries, 2/8

Poultry and Egg Raising at Home. By W. M. ELKINGTON. Illustrated. Price, post free, 1/2.

Poultry Culture for Profit. By Rev. T. W. STURGES, M.A. Third Edition. Cr. 8vo, 134 pages. Fully illustrated. Post free in the United Kingdom, the Colonies, and foreign countries, paper covers, 1/3; cloth, 1/9.

Poultry Fattening. By EDWARD BROWN, F.L.S. Fifteen illustrations, 120 pages. Price, 1/2 post free.

Poultry for Prizes and Profit. By JAMES LONG. New Edition. Revised by W. M. Elkington. Illustrated. Post free 6/4 in the United Kingdom; in the Colonies and abroad, 7/6.

Poultry-Keeping as an Industry for Farmers and Cottagers. By Edward Brown, F.L.S., Secretary of the National Poultry Organisation Society. Sixth Edition. 4to, 206 pages, fully illustrated. Post free in the United Kingdom, 6/6; 6/9 to the Colonies and foreign countries.

Popular Poultry-Keeping. By W. M. Elkington.

Illustrated. Price, post free, 1/2.

Possibilities of Modern Poultry-Farming.

By J. Stephen Hicks and W. H. G. EWART. Price, $I/I_{\frac{1}{2}}$ post free.

Progressive Poultry Culture. By ARTHUR A. Brigham, B.S., Ph.D. Illustrated. 300 pages. Postfree, 6/6.

Races of Domestic Poultry. By EDWARD BROWN, F.L.S., Secretary of the National Poultry Organisation Society. 4to, 234 pages, with chapters on breeding, fully illustrated. Post free in the United Kingdom, 6/6; 6/9 to the Colonies and foreign countries.

Record Poultry Book. Nine illustrations. Written

by Experts. Post free, 1½d.

Record Poultry Book. Nine illustrations. Written by Experts in Welsh. Price, post free, 1½d.

Report on the Poultry Industry in America. By Edward Brown, F.L.S. Third Edition. Fully illustrated. Price, post free, 1/3.

Report on the Poultry Industry in Denmark and Sweden. By Edward Brown, F.L.S. Fully

illustrated. Price, post free, 1/3.

Report on the Poultry Industry in Belgium. By EDWARD BROWN, F.L.S. Fully illustrated. Price, I/-; post free, I/2.

The New Book of Poultry. By Lewis Wright. Demy 4to, 600 pages, with many coloured plates, &c. Post free in the United Kingdom, 21/10; 24/- to the Colonies and foreign countries.

The Poultry Manual. By Rev. T. W. STURGES, M.A. 600 pages, 52 illustrations. Price, 6/6 post free.

Report on the Second National Poultry Conference, 1907. Edited by EDWARD BROWN, F.L.S. 382 pages, with nine illustrations. Post free in the United Kingdom, 5/6; in the Colonies and foreign countries, 6/-.

The Practical Poultry-Keeper. By Lewis Wright. Cr. 8vo, 320 pages, with eight coloured plates and other illustrations. Post free in the United Kingdom, 3/10; 4/- to the Colonies and foreign countries.

THE ILLUSTRATED POULTRY RECORD. TUDOR HOUSE, TUDOR STREET, E.C.

THE POULTRY CLUB.

SPECIAL meeting of the Council was held on A SPECIAL meeting of the Council was self-Friday, December 8, at twelve noon, at the London Chamber of Commerce, Oxford Court, Cannon Street, London, E.C., when there were present Mr. H. Wallis (chair), Messrs. W. Rice, P. H. Bayliss, S. C. Court, W. Richardson, W. M. Bell, J. Horn, W. Clarke, F. D. Little, T. Threlford, and G. Tyrwhitt-Drake, Hon. Sec. and Treasurer, to consider the matter of prize-money claimed by Messrs. J. Holmes, D. Warre 1 Lewis, J. Harries, and S. W. Thomas as due to them from the executive of the Carmarthen Show, and decide the same, under Rule 26, as appearing in 1910-11 Year-Book. A letter from Mr. F. King, dated December 4, 1911, was read by the Hon. Secretary. Mr. S. W. Thomas attended to give evidence, and having made certain explanatory statements withdrew from the room. After discussion it was proposed and seconded: "That the Council of the Poultry Club having considered claims put forward for prize-money won at Carmarthen Show, December, 1909, and having heard the letter read from Mr. F. King, the Hon. Secretary of the Carmarthen Show, dated December 4, 1911, have decided that the following sums for prizes are due: D. Warren Lewis, £2 12s. 6d.; John Harris, £1 5s.; Joseph Holmes, £2 10s.; S. W. Thomas, £3 11s.; S. W. Thomas, £3 11s." This was carried nem. con.

The monthly meeting of the Council was held on Friday, December 8, after the Special Council Meeting, at the London Chamber of Commerce, Oxf rd Court, Cannon Street, London, E.C., when there were present Mr. H. Wallis (chair), Messrs T. Threlford, W. Richardson, W. Rice, P. H. Bayliss, J. Horn, W. Clarke, S. W. Thomas, W. M. Bell, F. D. Little, S. C. Court, W. J. Golding, G. N. Goode, T. R. Ramsey, L. C. Verrey, J. S. Hicks, F. J. Broomhead, Captain R. R. Allen, and Mr. G. Tyrwhitt-Drake Hon, Secretary and Treasurer

Drake, Hon. Secretary and Treasurer.

The following new members were duly elected: Recommended by Cornwall Branch—Robert Northcott, Dreason, near Bodmin. Recommended by Cheshire Branch-W. Evans, Orpington Poultry Farm, Coppenhall, Crewe; Mrs. Rigby, Over Hall, Winsford; R. Evans, Rose Cottage, Winterley, Sandbach. Recommended by South Wales Branch—R. H. Sampson, J.P., Bryngwili, Pontardulais, Carmarthenshire. Recommended by Essex Branch—W. A. Laycock, Brambletye Poultry Farm, Wickford, Essex. Recommended by Surrey Branch—Cyril Walton, Hurley, Hersham Road, Walton-on-Thames; Jasper R. Shallcrass, Laburnums, Banstead, Surrey. Recommended by Notts Branch—Bernard Bond, Lowdham, Nottingham; E. W. Webster, Station Road, Bledlow, Bucks; Captain H. Spencer (Captain and Mrs. Spencer), Dean Lodge, Iron Acton, Bristol.

The following shows were announced to be held under Club Rules and specials allotted: Woolston, Maryborough, White Orpington Club, Radstock, Nantymoel, Truro, Guildford.

CORRESPONDENCE.—A card from Mr. R. Rodwell stating that he had still not yet received certain prize-money due to him from the 1910 Combined Specialist Club Show was read. Mr. W. M. Bell informed the Concil that all money had been paid out within the last day or so. A letter was read from Mr. W. M. Morrison, Secretary of the Strathbogie Farmers' Club, asking if certain fees for the Aberdeen. Banff, and Kincardine Branch Cup, which should have been paid before the Cup was offered at the Strathbogie Farmers' Club, Spring 1910, Summer 1910, Summer 1911, were paid now, all would be in order. It was decided that as the County Cup was not properly applied for, fees cannot now be accepted. Complaint from Major Barnes that certain prizes had been withheld at the late Theydon Bois Show was read, and it was decided to refer it to the Essex Branch to be dealt with.

The report of the Committee on Classification of "Light"

and "Heavy" Breeds having been brought forward, was adopted, on the propositi n of Mr. Rice, seconded by Mr. J. Horn, with the alteration of La Flèche to "Heavy breeds and Old English Game to the "Light" breeds. A copy of this report will be included in the forthcoming Year-Book.

Mr. L. C. Verrey mentioned that some time ago he and Mr. Jukes were appointed delegates of the Poultry Club on the Preliminary Committee to form a National Poultry He asked the Council whether he and Mr. Jukes were to continue to act. It was decided that Messrs. L. C. Verrey and W. A. Jukes continue to act until the next meeting, and that a notice be put on the agenda for the next meeting to again definitely appoint two delegates.

This was agreed to.

Disqualification at the late Bristol Show of Mr. R. Burge's Modern Game Bantam for alleged dyed breast, referred to the Council by the Gloucester Branch. Letters from the Secretary of the Bristol Show stating that the protest had been upheld by the Poultry Show Committee, and letters from Mr. Tennyson Fawkes, the Gloucestershire Branch Secretary, asking the Council to deal with the matter, were The bird in question having been produced, was examined by members present. After a short discussion the following resolution was duly carried: "The Gloucestershire Branch having referred to the Council the investigation of the protest against Mr. R. Burge's Modern Game Bantam, the Council have examined the bird which was sent to the Hon. Secretary from the Show, and are of the opinion that there is no evidence that colouring matter has been used on the feathers of the bird.

Mr. P. H. Bayliss moved that a breed cup be purchased

for Anconas. This was seconded and carried.

MALLING AND DISTRICT FANCIERS' SOCIETY APPEAL.— An appeal from the Malling and District Fanciers' Society against the resolution passed by the Kent Branch and confirmed by the Council, requesting that they withdraw a certain letter sent by them to Mrs. Mayhew, was read. Members of the Kent Branch present explained certain details, and after discussion it was proposed and seconded that the appeal be disallowed, but that the Hon. Secretary be instructed when writing this decision to the Malling Fanciers' Society to point out that the withdrawal of the letter only so far as it dealt with Rule 8 is required, and that other matters had not been officially dealt with by the Council, and therefore that no withdrawal on other points is requested.

The next meeting of the Council will be held at the London Chamber of Commerce, Oxford Court, Cannon Street, London, E.C., on Friday, January 12, at 2 p.m. All prospective members' names must reach the Hon. Secretary on or before January 4, and if residing in a county having a

branch through the secretary of same.

G. TYRWHITT-DRAKE, Hon. Secretary and Treasurer. Cobtree, Sandling, Maidstone.

Walker's Loose-Leaf Diaries and Books.

We have pleasure in again calling attention to the loose-leaf type of book manufactured by the firm of John Walker and Co., Warwick Lane, E.C. The diaries are made in all sizes and bound in a variety of leather covers, and for the many advantages this type of book possesses it is the best on the market. The simplicity of construction prevents them getting out of order, the rings being solid and rigid. The series of expert manuscript books produced by the same firm also possess distinct advantages. leaves can be torn out and inserted in separate transfer cases for various subjects. Whatever kind or type of diary, pocket, or notebook is required, the same can be supplied by Messrs. Walker and Co.

MARKETING. **MARKETS** &

Week Ending November 25.

The colder weather improved the tone of the market somewhat, but owing to supplies being very large there was no great advance in values. Chickens remained fairly cheap, owing to the abundance of pheasants, which were selling at a very low price.

New-laid eggs were scarce, and sold readily at 2d.

each wholesale.

Week Ending December 2.

The demand was rather better than during the previous week, but supplies were so very plentiful

that prices remained stationary.

New-laid eggs continued to sell at almost famine prices. A leading authority in the market stated that they were scarcer than they had been for at least ten years.

Week Ending December 9.

Supplies were again very plentiful both for poultry and game. The demand was fair, but many salesmen disposed of only a comparatively small proportion of their stock.

There was little doing in the egg market, for prices

remained so high.

Week Ending December 16.

There was a slight improvement in one or two directions so far as the value of poultry was concerned. Supplies were again plentiful, but the demand was very great, and this had a slightly hardening effect.

Eggs, too, were a little more plentiful, though the improvement was so small as to be hardly worth

mentioning.

PROPOSED TABLE - POULTRY THE CLUB.

THE adjourned meeting was held at the Prince's Saloon, Agricultural Hall, on Thursday, December 7, at three o'clock.

There were present Mr. Edward Brown, N.P.O.S. (in the chair), Messrs. Verney Carter, N.P.O.S., L. W. H. Lamaison (hon. sec. U.P.C.), Robinson, Farrer, Widdows, Beszant, Henfrey, and J. G. Edwards (hon. sec., pro tem.).

After a short discussion, the following motion was

put to the meeting and carried unanimously:

"That a committee be formed to confer with the Utility Poultry Club as to what steps should be taken for the encouragement and improvement of table poultry." It was resolved that the following be asked to form the committee, with power to add to their number:

Messrs. F. Beszant, E. T. B. Coppard, E. Druce, J. G. Edwards, W. H. Edwards, W. M. Elkington, P. Farrer, J. H. Gilbert, J. W. Hurst, Alderman Mills, E. Russel, S. C. Sharpe, E. Widdows, F. H. Wheeler, and W. Honfrey (hon. sec.).

A hearty vote of thanks to Mr. Brown for occupying the chair, and to Mr. J. G. Edwards for the work which he had done, brought the meeting to a close.

ULTRY, 1.		NTII.	Geese. Turkeys.		Y AND GAME. V. 30, 1911.	DECLARED VALUES.		59 600,73 600,73	1. 80,094 [821,040	S OF EGGS.	ENDING NOV. 30, 1911.	Quantities Declared	,	1,434,328 £639,192	<u> </u>			2,154,406
FOR HOME, COLONIAL, AND FOREIGN POULTRY, G THE FOUR WEEKS ENDING DEC. 16, 1911.	N MARKETS.	PRICES REALISED DURING THE MONTH.	Ducklings. G Each. P.		TS OF POULTRY AND MONTH ENDING NOV. 30, 1911	SS OF ORIGIN.		Austria-Hungary United States of America Other Countries		IMPORTS	MONIA END	COUNTRIES OF	CRICIN:	Russia Denmark	Germany			
AND FO DING DI	POULTRY—LONDON	PRICES REALI	Ducks. Each.		IMPORTS	COUNTRIES OF	Russia	Austria-Hungary United States of America Other Countries	104	. 4th Week.	Per 120.	/o 16/oto 17/o		4th Week.	Per 120.	0/81 01 0/910/		12/0 9/3 " 12/0
VIAL, KS EN			Chickens. Each.		Price Each During Month.		1/0 to 1/2	0/10,, 1/4 	EGGS.	. 3rd Week.	Per 120.	10 16/0 to 17/0	EGGS.	3rd Week.	Per 120.	to 20/0/16/0 to 18/0/16/0	20/016/0 " 18	9/3 "
COLO	FOREIGN								IRISH EC	2nd Week.	Per 120.	16/0 to 18/0 17/0 to 19/0	FOREIGN F	2nd Week.	Per 120.	02 01 0/21		9/6 " 2/9 "
OME, FOUR			COUNTRIES OF ORIGIN	Russia Belgium France United States of America Austria Australia	FOREIGN GAME LONDON MARKETS.	Capercailzie Black Game	Parmigan Partridges	Bordeaux Pigeons Hares Rabbits		1st Week.	Per 120.		FO	1st Week.	Per 120.	16/0 to 18/c	18/0 ,, 20/0 16/0 ,, 18/0	9/3 " 12/0 7/6 " 10/9
FOR H G THE			Countr	Russia Belgium France United State: Austria Canada Australia	FOREIGN LONDON M	Capercailzie Black Game	Ptarmigan Partridges.				DESCRIPTION.	Irish Eggs		DESCRIPTION		French		Austrian Russian
	ETS.	4th Week.	Each.	δ : : : : : : : : : : : : : : : : : : :	2/6 ,, 3/3 5/0 ,, 7/6 0/82,,0/11 0/82,,0/10	rs.	Each.	2/9 :0 2/0 1/6	: :	0/0 5/0	1/9	;; 9/0 9/0	01/0 " 6/0		Per 120.	20/- to 22/6	Eggs per dozen.	2/1 2/0
PRICES REALISED AND EGGS DURI	N MARKETS	3rd Week. 4th Week.	Each.		2/6 3/6 5/0 7/6 0/8½,,0/11 0/8½,,0/10	MARKETS	Each.	2/9 to 2/0 " 1/6 "	2/0 " 1/6 "	0/1 " 9/0	1/6 "	9/9	orlo " olo	New-Laid)	Per 120.	20/- to 23/-	Eggs per dozen.	2/0
PRICES AND E	-LONDO	2nd Week.	Each.	26 to 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20	2/6 " 3/6 5/0 " 7/6 0/9 "0/11 0/9 "0/10	-LONDON	Each.	2/9 to 3/2/0 2/1 / 2/6 2/2	1/3 "	0/6 1/0	16	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	۳۵/۱۵ ،	Guaranteed	Per 120.	20/-to23/-	Eggs per dozen.	2/2
	POULTRY-LONDON	1st Week.	Each.		2/3 " 3/6 4/6 " 7/6 0/8½,0/11 0/8½,0/10	GAME—L	Each.	3::	$\frac{ z _0}{ z _0}$, $\frac{ z _0}{ z _0}$	200	= = = 2 01 0	0/2 " 9/0 "	" olo	ENGLISH EGGS (Guaranteed New-Laid)	Per 120.	20/-1022/-	Eggs per dozen.	2/2
TABLE OF GAME	ENGLISH PC		DESCRIPTION.	Surrey Chickens Sussex Yorkshire Boston Essex Capons Irish Chickens Live Hens.	Ducks Geese Turkeys, Cockslb.	ENGLISH	DESCRIPTION.	Grouse Partridges. Pheasants	Black Game Hares Rabbite Trans	Pigeons Wild	Wild Duck			ENGLISE	MARKETS.	LONDON	Provinces.	MANCHESTER BRISTOL

UTILITY POULTRY CLUB.

LITERARY COMPETITION.

IN addition to their usual activities, the Utility Poultry Club last year arranged a Literary Competition offering many and valuable prizes for the best sets of Monthly Notes containing in a concise form the most practical advice and information for the assistance of poultry-keepers.

The three judges—Mr. T. R. Robinson, F.S.I., Mr. G. A. Palmer, and Mr. J. W. Hurst—have now made their awards on the eighteen competitive sets of Monthly Notes sent in for competition. The names of the prize-winners and the prizes awarded are as follows:

Class A.—Set of Notes for twelve months: First, Miss E. C. Davies, St. Mark's House, Woodhouse, Leeds; £5 cash and Hearson Champion Incubator (kindly presented by Messrs. Spratt's Patent, Ltd.). Second, P. Biddulph Symonds, Barnham, Sussex; £3 cash. Third, Miss F. C. Grundy, Royston, Herts.; £1 Ios. cash.

Class B.—Set of Notes for six months: First, Miss F. A. Bailey, Clevedon Cottage, Carlton, Beds.; £3 cash and "Encyclopædia of Poultry." Edition de Luxe (kindly presented by the Waverley Book Co., Ltd., 7 and 8, Old Bailey, E.C.). Second, Oscar Smart, Bonnybrook, Sunbury-on-Thames; £2 cash. Third, Miss E. A. Kemm, Worcester Park, Surrey, 10s. cash; and Henry Long, Stanbridge, Downend, Bristol, 10s. cash.

Class C.—Set of Notes for three months: First, A. J. Abbey, Lightwater Poultry Farm, Bagshot, Surrey; £1 cash and Vols. I. and II. The Illustrated Poultry Record (kindly presented by Messrs. R. T. Lang, Ltd., Tudor House, Tudor Street, E.C.); second, Miss M. Graham, Ferndale, Cavanalie, Strabane, Ireland; 15s. cash. Third, A. V. Stewart, Ben Wyvis, Coulsdon, Surrey; 10s. cash. Fourth, W. A. Roberts, Broughton, Great Bromley, Colchester; "Domestic Races of Poultry." Fifth, W. Henfrey, The Lower House, Langley Park, Beckenham; 5s.

The winning set of twelve Monthly Notes will be published in the Club Year-Book for 1912.

Luxurious Railway Travel.

The Great Central Railway Company has spoken the last word in luxurious travel by the introduction in their London and Manchester service of two entirely new trains, each of five coaches, the vehicles being mounted on two four-wheeled bogies of special type, which add considerably to the comfort of passengers, in ensuring their easy riding, with an absolute minimum of vibration. The carriages have been constructed in the company's own works at Dukinfield. The old-fashioned ventilators so common on the roofs of carriages have given place to side louvre ventilators, which admit a good supply of air, but keep out the dust. The lavatory appliances are most complete, the lighting is electrical, and controllable back lights are provided in each class of compartment. Each compartment is provided with bell communication with the attendant. Double parcel racks are provided in the first-class compartments and dining cars, and folding flush elbow rests conduce to changes of position on the part of the passenger during a long journey, whilst hassocks or footstools are also obtainable. In each side of the guard's van an ingenious train indicator, which is illuminated at night, has been introduced.

THE WHITE TURKEY CLUB.

SIR,—At the White Turkey Club meeting held on Monday, November 27, at Birmingham Poultry Show (by kind permission of Birmingham Agricultural Society), with Capt. Max de Bathe in the chair, the election of Lady Harlech as president was confirmed: Lady Susan Trueman, Mrs. Inge, and Mrs. Fisher being selected vice-presidents. Committee: Capt. Max de Bathe, Messrs. A. C. Gilbert, D. Vanderstegen, and Miss S. M. Corbett. On the proposal of Miss Corbett, the following standard of excellence was approved of:—

General Characteristics of the Cock.—Head and neck. Head: Long, broad, carunculated. Beak: Strong, curved and well set. Eye: Bright, bold and clear. Wattles: Large and pendant. Neck: Long and curving backward toward the tail. Body: Long, deep and well rounded. Breast: Broad, long and straight. Back: Curving, with a good slope to the tail. Wings: Strong and large. Tail: Long in proportion. Legs: Thighs, long and stout. Fluff: Short. Shanks: Large, fairly long and strong. Toes: Four in number, straight and strong. Size and weight: Large, cockerels, 18 lb. to 25 lb.; cocks, 25 lb. to 40 lb.

General Characteristics of Hen.—Similar to that of cock. Size and weight: Large, pullets, 12 lb. to 18 lb.; hens, 14 lb. to 20 lb. Colour: In both sexes—Beak, white; eye, iris, dark hazel; pupil, blue black; face, jaws, wattles, and caruncle, bright rich red; shanks and toes, pink and flesh colour; toenails, white; plumage, pure white with black tassel.

VALUE OF POINTS IN WHITE TURKEYS:—

				\mathbf{D}	educt.
Defects in	condition				5
,,	head, neck, a	nd v	vattles		15
,,	colour				25
,,	shape				20
,,	weight				25
,,	legs and feet				10
A perfect	bird to count				100

Serious defects:—Crooked breasts, wry tails, any other deformity.

It was suggested that a club show should be held in January in conjunction with a convenient Midland fixture, and that two young and two old bird classes, also a £2 2s. selling class, should be included. Prize money, 20s., 10s., and 5s., with 3s. 6d. entry fee. Club judges suggested for show; Lady Harlech, Mrs. Inge, Mr. Housman, Miss Corbett, and Captain de Bathe. The chairman hoped that members would do all in their power to advance the breeding of the white turkeys in the country, and to increase the club membership. A wish was expressed that challenge cups should be offered for competition if donors could be found

(Mrs.) Ada de Bathe, Hon. Sec. Hartley Court, Reading.

"Profitable Poultry."

Mr. A. F. Hunter has retired from the editorship of this monthly, to which position Mr. G. H. Pollard has been appointed.